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Understanding the Healthcare Experiences of LGBTQ+ People: An Adaptation of the Daily Heterosexist Experiences Questionnaire

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An Adaptation of the Daily Heterosexist Experiences Questionnaire

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Specific Aims

Identification of Issue

Addressing the health disparities among lesbian, gay, bisexual, and transgender people is a central task as identified by the Institute of Medicine (now the National Academy of Medicine) and the *Healthy People 2020* goals (Gonzales & Henning-Smith, 2017). There are a number of health disparities identified within this population. For instance, lesbian, gay, and bisexual people are at elevated risk for mental health concerns such as depression, anxiety, and substance use disorders (Cochran, 2003). Transgender people have a high rate of suicide attempts, with one study identifying that 41% of transgender participants reported having ever attempting suicide in comparison with 1.6% of the general population (Grant et al., 2011).

While the factors which contribute to these disparities are multifaceted, a concept known as "minority stress" has been posited as a key contributor. Minority stress, as defined by Meyer (2003), refers to the stressful life experiences which are related to LGBTQ+* people's minority status. A number of studies have linked minority stress to the health disparities found in this population (Balsam et. al, 2013; Meyer, 2003; Hendricks & Testa, 2012). However, very few studies have explored the healthcare-related experiences of LGBTQ+ people and how those experiences might contribute to the minority stress and health disparities found in this population.

Reliable and valid measures of LGBTQ+ people's healthcare experiences could assist in gathering information about the link between minority stress and health disparities given the gap in the literature in this area. There are no identified measures of healthcare

* "*LGBTQ+" is used to denote all members of this community, the rationale of which will be explained in detail*

-related minority stress among LGBTQ+ people. However, a study by Balsam et. al (2013) developed a tool for measuring heterosexism among LGBTQ+ people, called the *Daily Heterosexist Experiences Questionnaire* (DHEQ). Heterosexism is defined by Balsam et. al as "the social and cultural oppression experienced by LGBTQ+ populations." As there are no measures of heterosexist experiences LGBTQ+ people might face when accessing healthcare, this study aimed to adapt the existing Daily Heterosexist Experiences Questionnaire (DHEQ) and assess the psychometric properties for use in healthcare settings in order to address the gap in the literature on this topic. The adapted DHEQ for healthcare settings is titled the DHEQ-Healthcare, or DHEQ-H. This study will hereafter refer to this adapted questionnaire as the DHEQ-H.

This study employed a mixed-methods design consisting of a qualitative and quantitative phase. The qualitative phase included semi-structured interviews and provided guidance for the adaptation of the DHEQ. The quantitative phase consisted of a cross-sectional administration of the DHEQ-H and related questionnaires, such as the Short Form 36 Questionnaire (SF-36) and the Perceived Stress Scale, to measure physical and mental health concerns in order to assess the validity of the DHEQ-H. The data was analyzed using factor analysis. Participants consisted of members of the LGBTQ+ community who had received healthcare care within the past year prior to engaging this study.

The specific aims of this study are as follow:

Specific Aim #1 - The aim of the qualitative portion of this study is to identify themes and develop questions pertaining to experiences of heterosexism by LGBTQ+ people when accessing healthcare.

Hypothesis 1: It is hypothesized that many of these developed themes and questions will overlap with those identified in the DHEQ development study.

Specific Aim #2 - We will adapt the DHEQ based on the data gathered from the qualitative interviews.

Specific Aim #3 - To assess the psychometric properties of the DHEQ-H.

Hypothesis 2: It is hypothesized that there will be a positive correlation between total scores on the DHEQ-H and higher rates of reported physical and mental health issues as measured by instruments such as the GAD-7, PHQ-9, and SF-36, the latter of which measures general physical and mental wellness. There will be negative correlations between the DHEQ-H and a measure of resilient coping.

Hypothesis 3: It is hypothesized that the 9-factor solution (described in detail below) which was identified by Balsam et. al (2013) will also be utilized in the adaptation of the DHEQ

Significance

There are numerous benefits for both LGBTQ+ patients and healthcare provider in adapting a measure that captures the unique healthcare experiences of LGBTQ+ people. Some benefits for LGBTQ+ patients are as follows:

1) This questionnaire would assist LGBTQ+ people in identifying what factors might be impacting their mental/physical health and healthcare seeking behavior.

2) Findings of this study could help facilitate conversations between healthcare providers and LGBTQ+ people in order to appropriately address their healthcare needs.

Some benefits for healthcare providers are as follows:

3) This questionnaire would provide a more patient-centered approach for providers to ask about their client's experiences that might otherwise be unacknowledged and address health topics that are unique to the LGBTQ+ community.
4) The healthcare provider will have a questionnaire that would provide a holistic understanding of the healthcare experiences of their patients. This includes providing healthcare workers with an understanding of how their LGBTQ+ patients experience their own healthcare
5) The DHEQ-H can be used as a tool to help providers who have less experience and/or comfort with topics related to LGBTQ+ people understand their LGBTQ+ patients about healthcare experiences. More knowledge of the experiences of their patients will help guide treatment plans for members of the LGBTQ+ community.
6) In increasing provider cultural competency, facilitating patient-provider communication, and providing a guide for treatment planning, healthcare providers and healthcare systems will be better able to address health disparities in the LGBTQ+ community.

Alignment with USF Values

This project aligns with the values of the University of San Francisco in a number of ways. First, it is aimed at addressing the needs of a historically underserved community, which is a central value of the University of San Francisco. As a Jesuit Catholic institution, USF promotes the ideals of "cura personalis", or "care for the whole person." In many ways, LGBTQ+ people have been denied this holistic approach to their care and are often left feeling like that particular part of their identity is something to conceal or to feel ashamed about. Due to this culture of shame as propagated by the culture of heterosexism homophobia, and transphobia, LGBTQ+ people have often received subpar healthcare when compared to their heterosexual peers (Stein & Bonuck, 2001). In addressing this disparity, this research project aims to promote the overall health and wellbeing of the LGBTQ+ person, which is of central importance in the Jesuit Catholic tradition.

Chapter 1: Introduction

Lesbian, gay, bisexual, and transgender people (hereafter referred as LGBTQ+ people, as explained in the following section) are a marginalized community and evidence health disparities, in large part due to experiences of heterosexism and transphobia

(Albuquerque, 2016; Hendricks & Testa, 2012; IOM, 2011; Meyer, 2003; Ruben et al., 2017). While the LGBTQ+ community has achieved significant progress in recent years towards many rights they have historically been denied, there are many ways LGBTQ+ people are adversely impacted by living in a discriminatory environment (Ruben et al., 2017). Health disparities are conceptualized as being directly linked to the stress of living as a lesbian, gay, and bisexual population, as articulated in Meyer's Minority Stress Theory (2003). This theory has since been expanded upon by other authors (e.g., Hendrics & Testa, 2012) to include the experiences of transgender people.

It has also been identified that healthcare providers who are not well informed about the unique health needs of LGBTQ+ people can fail to appreciate the relationship between minority stress and health disparities (Sherman, 2014a). What's more, healthcare providers can intentionally or unintentionally contribute to the stress experienced by LGBTQ+ people, thereby adversely impacting the health status of their patients (Sherman, 2014a). While the link between minority stress and health disparities in this community has been explored, no tools have been developed for measuring the specific experiences of LGBTQ+ people's healthcare-related experiences, including interactions with their healthcare providers and the healthcare system generally.

It is the aim of the current study to adapt the Daily Heterosexist Experiences Questionnaire (DHEQ), a questionnaire developed by Balsam et al. (2013) that was originally developed to explore the overall experiences of heterosexism and transphobia experienced by LGBTQ+ people. The adapted questionnaire would measure stressful experiences of LGBTQ+ people when accessing services in a healthcare setting. This tool would provide valuable information about the healthcare-related experiences of LGBTQ+

people, which could have valuable benefits for both providers and LGBTQ+ patients as noted in the previous section.

Definition of Terms

An important topic to critically examine at the outset of this work is the use of language related to the LGBTQ+ community. Language and terminology are uniquely relevant to this population, as evidenced by the ever-expanding language used both by LGBTQ+ people and the wider community, including researchers in this area. Eliason (2014) provides a comprehensive though non-exhaustive list in his article on terminology related to sexuality and gender:

> Homosexual, gay and lesbian, same-gender loving, sexual minority, genderqueer, gay, lesbian, and bisexual, transgender, sodomite, sexual orientation, gender identity, pervert, femme, sapphite, intersex, invert, straight-appearing, third sex, gender expression, urning, sexual preference, cis gender, men who have sex with men, queer, women who partner with women, transsexual, sexual identity, the love that dare not speak its name, sexual expression, sexual behavior, gender performance, GLBT, men who have sex with women and men, fluid, boi dyke, butch, clone, psychosexual hermaphrodite, omni-sexual, top/bottom, women who have sex with women and men, two spirit, questioning, gender variance, gender non-conforming, sexual and gender minority

Given the expansive terminology related to this community, it is important to clearly define our terms for the purposes of this study. An index of terms related to this community is included in Appendix A of this document.

Sexual Identity and Gender Identity

To echo researchers such as Eliason (2014), the term "sexuality" in the current study refers to the set of characteristics related to reproduction, physical intimacy, desire, relationships, and physical arousal. These can include emotions, attitudes, knowledge, skills, identities, as well as other characteristics related to sexuality. In contrast, "gender" refers to the characteristics related to one's perceptions of the male/female and

feminine/masculine continua. Embedded in this definition of gender is the understanding of gender as non-binary and fluid. The term "gender" will be used in this manner in the current study. It is worth emphasizing the inherent difference of the terms *sexual identity* and *gender identity* in order to differentiate these two constructs that are often conflated.

Use of the Term "LGBTQ+"

Variations on the term LGBT, such as LGBTQ or LGBTQI, are often used to speak of the general population who do not fit stereotypical gender and/or sexuality norms in the United States. While this terminology is intentional in its specific language, this "concoction of…alphabet soup" (Petchesky, 2009) is unsatisfactory for a number of reasons. Frequently, this term is identified as particularly impractical given its number of variations (Petchesky, 2009). More importantly, the use of such a general term risks collapsing differences in condition, such as those of sexuality with those of gender (Petchesky, 2009). Furthermore, this terminology can also give the impression that there is a shared set of understanding and allyship within the community, where allyship within the community might not exist, or be in an early stage of development (Petchesky, 2009).

While it may be the case that this so-called "alphabet soup" should be avoided for these reasons, there is also a need for a universal term, however imperfect. Young and Meyer (2005) remind us that any term inevitably obscures distinctions when applied to a population, including those that utilize inclusive yet broad language. They also note how general terms such as sexual minorities, gay, lesbian, and LGBT have acquired global resonance and political and cultural meanings. Additionally, the terms gay, lesbian, and LGBT are widely used alongside more colloquial terms such as those provided in the aforementioned list by Eliason (2014).

Acknowledging the imperfections inherent to choosing a non-specific term, the term "LGBTQ+" will be used in this research when speaking about the general community of sexual and gender minorities. My hope is that in the use of "LGBTQ+", there is an understanding of, and appreciation for, the complexity of this terminology, the linguistically bound limitations of employing such terminology, and the necessity of having a common language in studying the experiences of this diverse community.

Healthcare/ Healthcare Providers

For the purposes of this study, "healthcare providers" are understood as any provider of mental or physical healthcare, whether direct or indirect. Examples include medical doctors, nursing personnel, mental health professionals, and other healthcare professionals. The term "healthcare" generally refers to the larger system of healthcare where people access their healthcare providers.

Heterosexism/Minority Stress

Understanding the term "heterosexism" is important for the current research given the use of the term in Balsam's questionnaire which this study seeks to adapt. Balsam et al define heterosexism as *"the social and cultural oppression experienced by LGBT populations."* They expand on this further, noting that the impact of heterosexism on individual LGBT people has been conceptualized as *minority stress,* which will be explored in detail in following sections.

Chapter 2: Literature Review

Intersectionality in the LGBTQ+ Community

While this research project will focus particularly on gender identity and sexual identity, it is important to first emphasize that members of the LGBTQ+ community have a multitude of identities beyond their sexual orientation and/or gender identity. The conceptual framework of intersectionality is useful for understanding this important fact.

The framework of intersectionality stems from Black feminist scholarship, specifically the work of Crenshaw (2018). This framework posits that multiple identity statuses, such as being African American and a woman, can act both independently of one another, as well as combine additively to shape a person's experience (Parent, DeBlaere, Moradi, 2013). As another example, a lesbian woman might also identify as Latinx, and her experience of the world would be distinct from a lesbian woman who identifies as African American. In this way, the intersectional perspective recognizes that the multiple identity variables held by any person are inherently intertwined and shape the person's experience of themselves and the world.

It is the hope that in writing about sexual and gender minorities and using general terms such as "LGBTQ+", there is an additional understanding that those within the LGBTQ+ community have many intersecting identities beyond sexual or gender identity. In this research, every effort will be made to specify how these additional identities might impact the experiences of the LGBTQ+ community members who will participate in this research project. Nonetheless, the primary focus of this project will be the experiences of those who are marginalized in terms of their gender identity and/or sexual orientation.

Minority Stress Theory

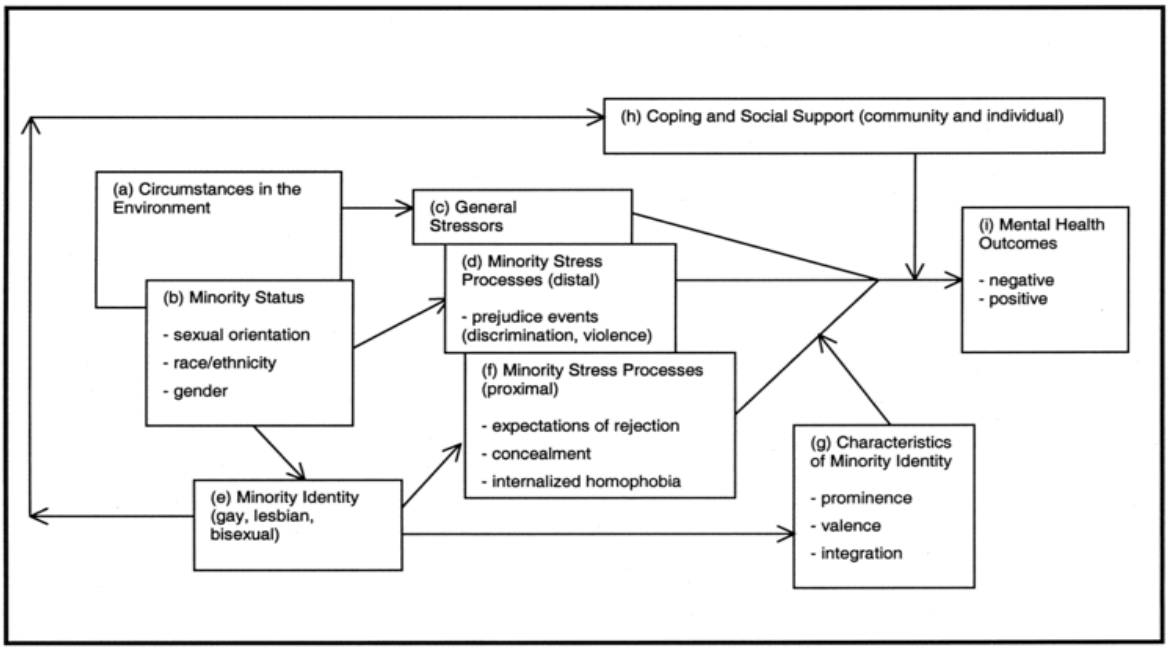
Minority Stress Theory (hereafter referred to as MST), introduced by Meyer (2003), is another useful conceptual framework for understanding how stressful experiences related to one's lesbian, gay, or bisexual identity might impact their health outcomes. While this theory explicitly explores the effects of minority stress on the mental wellness of lesbian, gay, and bisexual people, there have been established links between minority

stress and physical wellness as well, which will be presented. Of note, Meyer's original framework does not include the minority stress experiences of transgender people; an additional framework inclusive of transgender people is detailed in the following section.

In reviewing the prevalence of mental disorders in lesbian women, gay men, and bisexual people, Meyer (2003) sought to explain the higher prevalence of mental disorders in lesbian, gay, and bisexual people. The conceptual framework of MST is offered as a theory to help explain these findings. In MST, minority stress is understood as *the excess stress that people from stigmatized social categories might experience as a result of their social position* (Meyer, 2003). A number of processes are included in the minority stress model, which is described in detail in this figure taken from Meyer's article on MST.

Figure 1

Minority stress processes in lesbian, gay, and bisexual populations



Note: This figure is taken from "Prejudice, Social Stress, and Mental Health in Lesbian, Gay, and Bisexual Populations: Conceptual Issues and Research Evidence" by I. Meyer, 2003, *Psychological Bulletin*, 129(5), page 679, Figure 1.

This model depicts stress and coping and their impact on mental health outcomes, which are presented in box i. At the beginning of the minority stress process, Meyer emphasizes how minority stress is situated within general environmental circumstances (box a). An example of an environmental circumstances may include advantages and disadvantages related to socioeconomic status. One important aspect of these circumstances in the environment is the person's minority status, for example being gay or lesbian (box b). Meyer depicts these as overlapping boxes in the figure to indicate the close relationship to other circumstances in the person's environment. For instance, the minority stressors for a gay man who is financially poor would primarily be related to his poverty (Meyer, 2003). This is related to the conceptual framework of intersectionality, which highlights the role of other identity factors (e.g., socioeconomic status) might play a role in one's stressful life experiences.

In box "c", Meyer emphasizes how circumstances in the environment lead to exposure to stressors, including general stressors, such as a job loss or death of an intimate. As these factors are relevant to all people and not unique to LGBTQ+ people they will not be emphasized in the current research, though it is an important aspect of the minority stress model worth noting.

The factors in boxes "d" and "f" are perhaps the most relevant to the current research project. They are considered the minority stress experiences that are unique to

minority group members. This can include experiences such as discrimination in employment (box d). Meyer uses the term "distal" to describes these external social conditions and structures which act on people. Meyer goes on to explain how minority status often leads to personal identification with one's minority status (box e). As such, minority identity leads to additional stressors related to the individual's perception of the self as a stigmatized and devalued minority. These minority stress processes are termed "proximal" by Meyer, as they are considered more proximal to the individual as they involve self-perceptions and appraisals. As indicated in the minority stress model graphic, these could include expectations of rejection, concealment, and internalized homophobia (box f). Similar to their environmental circumstances, Meyer also notes that the stressors are depicted as overlapping as well, representing their interrelatedness.

Meyer's model emphasizes that minority identity is not only a source of stress, but also an important effect modifier in the stress process. This is indicated in boxes "g" and "h". First, characteristics of minority identity can augment or weaken the impact of stress (box g). For example, minority stressors may have a greater impact on health outcomes when the LGB identity is prominent than when it is secondary to the person's self-definition (Thoits, 1999). Second, LGB identity may also be a source of strength (box h) when it is associated with opportunities for affiliation, social support, and coping that can ameliorate the impact of stress.

To summarize, MST posits that some stressors are general, some are "distal" in that they are external social conditions and structures which act on people, and others are "proximal" in that they are manifested in the immediate context of a person's life (Meyer, 2003). Meyer goes into further detail in explaining the distal-proximal distinction, noting

that distal stressors are often manifested in the immediate context (in other words, the proximal) social experiences of a person's life. Put another way, distal factors become proximal concepts as those factors gain psychological importance to the individual. These concepts, especially the experiences of proximal and/or distal events and the subsequent vigilance and internalization of those events, are central to the framework of the current study.

Expansions on the Minority Stress Model

Concepts from the minority stress model have been applied to a number of other communities, including the transgender community. This is of particular relevance to the current study given its inclusion of transgender people. This expanded minority stress model, proposed by Hendricks & Testa (2012), highlights the link between the adverse experiences of transgender people and their gender identity and expression. This results in fear and occasionally internalized transphobia. In other words, a similar process as that proposed by Meyer in relation to lesbian, gay, and bisexual people is put forth by Hendricks & Testa (2012). Thus, the minority stress model employed in the current research will include concepts from both Meyer (2003) and Hendricks & Testa (2012).

The components of minority stress provide the theoretical framework for the questionnaire which will be adapted for this dissertation project. These concepts are introduced to provide some context of MST prior to an exploration of the impact minority stress has on LGBTQ+ people's well-being.

The Nature of LGBTQ+ Minority Stress

Balsam et al. (2013) offer some insight into unique nature of LGBTQ+ people's minority stress experiences. They emphasize that, while LGBTQ+ people are subject to a

range of negative discriminatory experiences, people within the LGBTQ+ community can vary in the extent to which they perceive these experiences as stressful. For instance, many LGBTQ+ people may psychologically internalize negative attitudes towards themselves or their group, which results in believing these negative messages. This is commonly referred to as internalized homophobia, which could hypothetically impact the level of subjective stress experienced by exposure to a particular stressor (Meyer, 2003). For instance, a transgender person might have internalized transphobic attitudes, and thus could experience a transphobic event in a way that would be different from a transgender person who has less internalized transphobia.

LGBTQ+ people also often have the option of concealing their identities, which might also impact how much subjective stress an LGBTQ+ person experiences (Ragins, Singh, & Cornwell, 2007). For instance, a lesbian woman might not be able to be identified by any physical characteristic, as opposed to the experience of a racial or ethnic minority, who might be identified by a physical characteristic. There can also be variation in stressful life experiences among particular groups within the LGBTQ+ community. For instance, those who have a more socially conventional gender expression might be less likely to encounter discrimination. In these ways, there are a number of factors that contributed to the differences in perceived stress experienced by different members within the LGBTQ+ community.

While minority stress can also be applied to other minority groups, the minority stress experienced by LGBTQ+ people is understood as similar to, yet distinct from, the experiences of other minority groups. LGBTQ+ people are subject to a range of discriminatory experiences, as is the case for racial/ethnic minorities (Balsam et al., 2013).

Like many minority communities, LGBTQ+ people can internalize negative social messages as mentioned above. As aforementioned, some LGBTQ+ people often have the option of concealing their minority status, which is not always possible for other minority communities. In fact, it has been found that those who are more disclosing of their status as an LGBTQ+ person might be subject to more external stressors, while those who conceal their identity might be subject to more internal stressors (Balsam et al., 2013). This is one way in which LGBTQ+ people have unique experiences of minority stress.

While minority stress in the LGBTQ+ community is understood as similar to yet distinct from that experienced by other marginalized populations within the United States, it is also worth re-emphasizing the role of intersectionality, which holds that, when additional factors such as gender, ethnicity, race, and socioeconomic status are considered, the resulting stress (and health disparities, as the following section will illustrate) can increase (IOM, 2011; Balsam et al., 2013). This highlights the importance of the intersectional framework in considering minority stress in the LGBTQ+ community.

Minority Stress & Health Disparities

Minority stress has important implications for the health status of LGBTQ+ people. The minority stress model emphasizes the role of both distal and proximal stressors related to stigma and prejudice on the mental health of LGBTQ+ people. This link has been made by Meyer (2003) and other researchers who have explored the minority stress model.

Elevated levels of distress among lesbian, gay, and bisexual people are thought to have harmful health effects on some people (Cochran, 2007). Ruben et al. (2017) emphasized that the health disparities found within the LGBTQ+ community are often not

inherent to these identities but rather are a consequence of living as a minority person within a context of hostility and rejection. Given the higher rates of mental health concerns, and the link between mental and physical health, MST will provide a useful conceptual framework for this exploration of the health and healthcare related experiences of LGBTQ+ people.

Disparities in Health Outcomes

As mentioned in the preceding section, LGBTQ+ people experience a range of stressors in their daily lives which can negatively impact their physical and mental wellness (Cochran, 2007; Ruben et al., 2017). Prior to an analysis of these stressors as they relate to the healthcare experiences of LGBTQ+ people, some of the specific health disparities among lesbian women, gay men, bisexual persons, and transgender persons are presented. It is worth noting that not all health disparities evident in the LGBTQ+ community are necessarily linked to their healthcare-related experiences. Indeed, it has been identified that sexual minority orientation is associated with elevations of risk for common health conditions (Cochran, 2007). However, it is possible that these pre-existing disparities can be exacerbated by experiences within the healthcare system.

The intersectional perspective is useful in illustrating this point. For instance, a lesbian-identified woman from a lower socioeconomic status who is uninsured may have increased health disparities primarily related to her financial and healthcare status when compared to a lesbian-identified woman from a higher SES. Any negative healthcare-related experiences for either or both women could possibly serve to exacerbate these pre-existing disparities. We turn now to a brief summary of some of the identified health disparities found in the LGBTQ+ community when compared to the general population.

General Health Disparities among LGBTQ+ People

There is a growing body of literature documenting the unique mental and physical health disparities found among LGBTQ+ people. The studies on the subject vary in terms of the sub-populations they include. Those who studied some combination of lesbian, gay, bisexual, and transgender people are presented in this section. The following sections will detail the specific disparities identified among each of these subpopulations.

Many studies have demonstrated that lesbian, gay, and bisexual people are at elevated risk for mental health concerns such as depression, anxiety, and substance use disorders (Cochran, 2001). Additionally, minority sexual orientation is also associated with higher rates of mental health comorbidities. Lesbian, gay, and bisexual people had a comorbidity rate of two or more mental health concerns (such as anxiety and depression), which is nearly three to four times greater than heterosexuals of the same gender (Cochran, 2003).

LGBTQ+ people are more likely to identify themselves as being in poor health as compared to heterosexual people (Krehely, 2009). Lifetime reports of asthma are elevated among lesbian, gay, and bisexual people (Conron, 2010). Lesbian, gay, and bisexual people are also more likely to become physically disabled at a younger age when compared to heterosexual people (Daniel & Butkus, 2015). LGBTQ+ people also have an elevated lifetime risk of physical and sexual abuse and discrimination (Balsam, Rothblum, Beauchaine, 2005). Sexual minorities evidenced greater all-cause mortality than did heterosexuals, which is likely linked to sexual orientation related health disadvantages, rather than sexual orientation itself (Cochran, 2016). Taken together, these findings

suggest that both sexual orientation and the health-related disadvantages associated with sexual orientation contribute to health disparities such as a higher mortality rate.

There are demonstrated health disparities found in each subgroup of sexual and gender minorities, namely lesbian women, gay men, bisexual people, and transgender people. While many studies have studied the LGBTQ+ community as a whole, some studies have identified differences in health outcomes and health risk factors between subgroups based on sexual orientation and gender identity (Gonzales & Henning-Smith, 2017). Indeed, while health was poorer on 16 out of 22 health characteristics in a population-based study on health disparities related to sexual orientation, there was significant variability found between subgroups within the LGBTQ+ community (Conron, 2010). Due to this identified heterogeneity of health disparities, details of each sexual minority population are presented separately in order to highlight the differences among these subpopulations.

Health Disparities Among Lesbian Women

A number of disparities are evident in the lesbian population. For instance, lesbians are at greater risk for obesity and related health concerns, including heart disease (IOM, 2011). In another study (which did not analyze lesbian and bisexual women separately), worse physical outcomes were found in their sample of lesbian and bisexual women, including activity limitations, arthritis, and asthma, as well as health risks including current smoking and recent binge drinking, when compared to heterosexual women (Gonzales & Henning-Smith, 2017).

Lesbian women have also been found to be more likely to report worse overall health, frequent mental health distress, a positive lifetime history of tobacco use, monthly binge drinking, and a lower level of health insurance coverage than were heterosexual

women (Cochran, 2016). There is also evidence for elevated risks for generalized anxiety disorder among lesbian women (Cochran, 2003). Additionally, 24% of lesbian women in their sample met criteria for two or more disorders, which is nearly 3-4 times higher than that observed among heterosexual women (Cochran, 2003).

Health Disparities Among Gay Men

A number of health disparities have been identified in the gay male community. Many of these disparities are directly or indirectly linked to the HIV epidemic, which continues to disproportionately impact gay men (IOM, 2011). The high seroprevalence in the gay male community has been associated with high rates of distress (Balsam et. al, 2013). Importantly, African American gay men are at greater risk for HIV transmission, highlighting how differences in identity variables can contribute to the risk factors for a certain person or population.

While there are health differences among gay men and their heterosexual counterparts, HIV infection specifically has been associated with many of the higher rates of physical and mental health conditions in the gay male community, rather than sexual orientation alone (Cochran, 2007). Indeed, when men who reported HIV infection were excluded from the analyses by Cochran (2007), many of the health differences between gay men and heterosexual men disappeared, which indicates HIV has a greater impact on health disparities than sexual orientation alone. Similarly, HIV-related issues largely account for the higher risks of mortality found in sexual minority men (Cochran et al., 2007).

It has been identified that other sexually transmitted infections STIs such as gonorrhea and syphilis rates are increasing among the gay male population in recent years

(IOM, 2011). Gay men have also been found to have a greater risk for anal cancer than other men (IOM). Gay men were also found to have higher levels of body dissatisfaction and bulimic and anorexic symptoms when compared with heterosexual men (IOM, 2011).

Mental health problems are relatively common among gay men, especially when factoring in other demographic variables such as age, income, and marital status (Hickson, 2016). Their data suggest that younger gay men are at significantly greater risk of poorer mental health, including higher rates of anxiety, depression, suicide attempts, and self-harm. When compared with heterosexual people, gay men were found to have higher rates of major depression and panic disorder (Cochran, 2003). Additionally, 20% of gay men in their sample met criteria for two or more mental health disorders, which is nearly 3-4 times higher than that observed among heterosexual men (Cochran, 2003).

Health Disparities Among Bisexual people

Studies indicate that bisexual identity was associated with the highest incidence of mood and anxiety disorders among the LGBTQ+ community (IOM, 2011). Related to the minority stress framework, some researchers have proposed that "biphobia" or anti-bisexual prejudice, which often involves the perception of bisexuality as an illegitimate sexual orientation, has been linked to the higher incidence of mental and physical health issues in this population (Katz-Wise, Mereish, Woulfe, 2017).

When compared to either heterosexual or lesbian and gay adults, bisexual adults are more likely to experience symptoms of depression (Conron, 2010). Indeed, bisexual people are more likely to report 30-day tension or worry, sadness, and illegal drug use, as well as current smoking and prior-year suicidal ideation (Conron, 2010). Bisexual adults also report higher rates of binge drinking, higher rates of self-harming behaviors, and suicide

attempts (HRC). Bisexual women were more than twice as likely to have an eating disorder than lesbians and heterosexual women (Conron, 2010).

In terms of physical health disparities, bisexual women are at elevated risk for heart disease compared to heterosexual women (IOM, 2011). Bisexual women have higher rates of obesity, and they face higher rates of breast cancer and all cancers than the general population of women (Cochran, 2016; HRC). Bisexual men are less likely to get tested for HIV, which has caused them to be more affected by HIV (HRC). They also have higher rates if HPV (HRC). HIV infection among gay and bisexual men remains an important factor for mortality, especially in bisexual men (Cochran, 2016). Many of the aforementioned authors emphasize the need for greater understanding of the unique issues facing bisexual people given the paucity of research in this area.

Health Disparities Among Transgender people

While there are significant findings in the literature relating to health disparities in the transgender community, there are very few studies on this topic specifically. In a large study of transgender veterans, a great number of health disparities were identified when compared to non-transgender people. This included higher rates of major depression, PTSD, suicidal ideation/attempt, alcohol abuse, tobacco use, and serious mental illness (Brown & Jones, 2016). Odds of HIV seropositivity in this sample of transgender veterans were nearly five times greater when compared to non-transgender controls (Brown & Jones, 2016). In another survey, transgender respondents were found to have an infection rate of 2.64%, while the general U.S. adult population has an HIV infection rate of .6% (Grant et al., 2011). When compared to the general U.S. adult population, transgender people experience a disproportionate risk for mental illness, suicide, and suicide attempts.

In one study, 41% of transgender participants had attempted suicide at some point in their life in comparison with 1.6% of the general population (Grant et al., 2011). While these disparities are clearly significant, there are unfortunately very few studies on this topic specifically.

Risk & Resilience Factors

Having detailed some of the health disparities found in the LGBTQ+ community, I will now examine some risk and resilience factors among LGBTQ+ people. These factors are presented as they can provide some information on what other factors might be related to these identified disparities. Additionally, Meyer's (2003) minority stress theory indicates the moderating effect that factors such as coping and social support can have on the minority stress process.

Risk Factors:

There are a number of risk factors relevant to the LGBTQ+ community as it relates to their health disparities. For the purposed of this study, risk factors are defined as behaviors that might increase the risk for adverse health outcomes. For instance, Gonzales & Smith (2017) identified that that lesbian and bisexual individuals have higher health risks (including obesity, current smoking, recent binge drinking) when compared to heterosexual women, and bisexual men were found to be more likely to be current smokers. These factors could put these populations at risk for future medical concerns, e.g., heart disease or cancer.

Risk factors among transgender populations have been linked to HIV risk specifically (Herbst et al., 2008). This includes individual factors such as suicidal thoughts and misperceptions of HIV risk. This also includes interpersonal factors such as physical

and sexual abuse, violence at home, and discomfort in public settings, as well as societal/structural factors such as discrimination in employment and social services, incarceration, and transgender specific healthcare needs. This study also highlighted that there were elevated risk factors among African American male-to-female transgender individuals, which suggests that the dual stigma of being both transgender and a racial minority might increase HIV risk. This finding underscores the aforementioned additive nature of minority stress.

The risk factors identified by these researchers, which include both individual and community factors among lesbian, gay, bisexual, and transgender people, will be considered in the adaptation of the existing DHEQ. While this adaptation seeks to create a measure specifically related to healthcare experiences of LGBTQ+ people, rather than an assessment of risk factors, these factors are useful to consider in contextualizing the overarching aims of this project, e.g.,, to reduce health disparities in a community which has been identified as having several risk factors.

Resilience Factors:

Resilience has been defined as *a positive adaptation and development under conditions of risk and adversity* (Hill & Gunderson, 2015). There are multiple types of resilience, including social environment resources and personal characteristics. Some social environment resources include social support, school/workplace/government support, and community resources. Some personal characteristics identified include social motivation, emotional openness, hope and optimism, and positive LGB identity (Hill & Gunderson, 2015).

A number of additional protective factors have been identified as relevant to gay and bisexual men specifically. Some of the theoretically driven measures of resiliencies identified as relevant to this population include the following: individual factors (such as shamelessness, self-monitoring, and optimism), dyadic factors (such as social bonding and healthy sex), family factors (such as social bonding, fictive kin, and biological family resolution), and community factors (such as connection to sexual minority community, connection to non-sexual minority communities, and living in a safe and accepting neighborhood) (Herrick, 2014).

The Transgender Resilience Intervention Model (TRIM) was developed to expand theories of reliance to include transgender people (Matsuno & Israel, 2018). The TRIM suggests that social support, community belonging, family acceptance, participating in activism, having positive role models, and being a positive role model as group-level resilience factors. They also identified that self-worth, self-acceptance and/or pride, self-definition, hope, and transition to be individual-level factors that promote resilience.

In conclusion, there appear to be relatively stable factors identified by a number of theorists relating to resilience factors among LGBTQ+ individuals. These include individual and community factors. These factors will not be a central focus of study in the current research, as they were not studied in the development of the DHEQ. However, a brief measure of resilient coping was included to gather information on this important topic

Factors that Contribute to Health Disparities in the LGBTQ+ Community

As mentioned, the health disparities found within the LGBTQ+ community are understood as a consequence of living as a minority person within a context of hostility and

rejection. Having outlined these health disparities, I turn now to a critical analysis of some of the factors that have been identified as contributing to these health disparities.

To reiterate, the MST holds that LGBTQ+ people experience general stressors such as job loss or the death of a spouse. These experiences are not specific to the LGBTQ+ community and as such will not be explored in the current study. Other stressors are "distal" in that they are external social conditions and structures which act on people, such as discrimination based on LGBTQ+ status when applying for a job. Stressors are considered "proximal" in that they are manifested in the immediate context of a person's life (Meyer, 2003). An example of a proximal stressor concealment of LGBTQ+ identity when applying for a job. Importantly, distal factors become proximal concepts as those factors gain psychological importance to the individual. The following are examples of distal/proximal stressors identified in the literature as relevant to LGBTQ+ people's healthcare experiences.

Factor Example 1: Systemic Factors

There are systemic factors that contribute to the discrimination experienced by LGBTQ+ people and the resultant health disparities found in this community. For the most part, these factors can be understood as distal as they represent larger discriminatory systems. For instance, the VA system has been cited as likely the largest provider of healthcare for LGBTQ+ people in the country, though it does not collect information on sexual orientation and gender identity in its demographic data (Ruben et al., 2017). Gathering such data could inform treatment plans and increase attention and understanding of health disparities in the LGBTQ+ community (Ruben et al., 2017).

The studies that have gathered such data have identified alarming trends. In one study of 116 students in the health professions in the United States, 8-12% reported that homosexuality should be punished (Albuquerque, 2016). Additionally, 5-12% of those surveyed reported a dislike of sexual minorities, and 51-53% reported that homosexuality was against their religious beliefs (Albuquerque, 2016). Notably, such rates are likely much higher in other nations (Albuquerque, 2016).

Healthcare access can also contribute to health disparities. For instance, transgender people are less likely to have health insurance when compared to cisgender people (Grant et al., 2010). Exclusions on transgender healthcare in health plans might cause a transgender patient to seek treatment options through illegal channels, such as the use of illegally obtained hormones or illegal self-administration of silicone (Daniel & Butkus, 2015). Research has found that this situation might be worse for transgender African Americans, who report the lowest rate of health insurance coverage of any racial group, again highlighting how racial and ethnic minority groups might be disproportionately impacted (Giffort & Underman, 2016). These findings demonstrate the link between barriers to healthcare access and the resultant health disparities. This example, while somewhat distal in nature, is also somewhat proximal as it might immediately impact a transgender person seeking healthcare.

Aside from the culture of healthcare systems, it has been identified that the larger socio-political context of LGBTQ+ people can directly impact the wellness of LGBTQ+ people. Prior to the Supreme Court legalization of same-sex marriage in 2015, sexual minority people living in states where same-sex marriage was not legal reported worse physical and mental health conditions than their counterparts in states where same-sex

marriage was legal (Ruben et al., 2017). Thus, there is evidence for a link between criminalization and/or stigmatization of homosexuality on access and utilization of medical services. Importantly, many of the health disparities associated with the criminalization of homosexuality likely continue to affect those who lived for many years in an oppressive socio-political environment. This is a clear example of a distal stressor.

In summary, the wellness of LGBTQ+ people is impacted by both systemic factors directly related to healthcare, as well systemic factors which are related to the wider cultural assumptions about LGBTQ+ people. This highlights the complexities inherent to measuring minority stress, given the number of factors that can be contributing to the stress of LGBTQ+ people. While the current study will focus primarily on the specific role of the healthcare system and healthcare providers as it relates to healthcare of LGBTQ+ people, these larger factors are presented in order to provide context relating to minority stress and the healthcare experiences of LGBTQ+ people.

Factor Example 2: Provider Cultural Competency

The degree of cultural competence of healthcare providers as it relates to working with LGBTQ+ people is an important factor when considering health disparities in the LGBTQ+ community. Lack of provider cultural competence when working with LGBTQ+ patients can contribute to the health disparities found in this population (Krehely, 2009). For this reason, an exploration of the role of healthcare providers' cultural competence as it relates to LGBTQ+ people is an important first step in understanding the health disparities found in this community. As with other factors, this factor can be understood to be distal in nature, and increasingly proximal as it impacts the individual LGBTQ+ person.

Ruben et al. (2017) define LGBT cultural competence in healthcare as an appreciation for the impact of social and cultural influences on patients' health beliefs and behaviors. LGBTQ+ cultural competence can be demonstrated by designing interventions that assure high quality healthcare delivery to diverse patient populations. Cultural competence is related to the concept of patient-centered care, which values the needs and preferences of the patient (IOM, 2001). While some studies have focused on cultural competence in graduate training programs, healthcare providers, and treatment teams, cultural competence is an area that has been historically understudied (Ruben et. al, 2017).

An approach to cultural competency for LGBTQ+ people is called an *LGBTQ+ affirmative approach*. An LGBTQ+ affirmative approach rejects heteronormative and heterosexist notions of LGBTQ+ sexual orientations and gender identity, and instead affirms LGBTQ+ people as having a normal, healthy, and legitimate sexual orientation and/or gender identity (Bidell & Whitman, 2013). Providers operating from this understanding actively work to advance their awareness of LGBTQ+ issues and utilize evidence-based and non-discriminatory approaches when working with clients (Bidell & Whitman, 2013). A similar way of conceptualizing cultural competency that is specific to the healthcare professions is *clinical cultural competence*, which is defined as provider knowledge about sociocultural factors, health disparities, and efforts by the healthcare system to train providers to consider these issues when providing care.

An example of clinical cultural competence is useful in illustrating this concept. Ruben et al. (2017) examined how a Veterans Affairs Medical Center worked to improve clinical cultural competence in their healthcare system. Some examples of efforts to improve clinical cultural competence as identified by Ruben et al. (2017) include local

clinical training such as specific educational colloquia provided to newly hired staff. Another suggestion for increasing clinical cultural competence is a local patient support group, such as groups for specific members of the LGBTQ+ community. A final example of methods to increase clinical cultural competence re system-wide trainings such as a nationwide E-consultation program for transgender veterans provided by the VA Boston Healthcare System (Ruben et al., 2017). These are some of the many efforts made by a specific healthcare system to address provider competency and patient needs.

In summary, LGBTQ+ cultural competence in healthcare generally involves an approach to working with LGBTQ+ people which involves humility and sensitivity, as well as a sense of affirmation and advocacy for the needs of LGBTQ+ people. This approach is central to addressing the healthcare related needs of LGBTQ+ people. This proposed tool could increase provider cultural competence by allowing for a deeper understanding of the nature of the experiences of LGBTQ+ patients could provide valuable information about the role of provider's cultural competency as it relates to LGBTQ+ people's health disparities.

Factor Example 3: Discrimination by Healthcare Providers

A handful of studies have analyzed the role of healthcare providers in the health of LGBTQ+ patients. It is important to emphasize that not all minority stress experiences or health disparities found in the LGBTQ+ population are necessarily linked to negative experiences with their healthcare providers. With that being said, it is likely that healthcare providers can directly or indirectly impact the health of their LGBTQ+ patients by failing to understand the unique experiences of LGBTQ+ people, as well as directly contribute to that stress themselves through discriminatory behavior.

In a meta-analysis of studies on the access to health services by LGBTQ+ people, Albuquerque et al. (2016) found that LGBTQ+ people have difficulties accessing health services as a result of heteronormative attitudes imposed by health professionals. Indeed, they found that non-heterosexual orientation was a determinant factor in the difficulties of LGBTQ+ people in accessing healthcare. Respondents often reported difficulties communicating with health professionals, fears of assumptions about their sexual orientation or gender identity, as well as fear of embarrassing situations with talking about their sexual orientation with providers (Albuquerque et. al, 2016). It is also suggested that negative past experiences with healthcare may also deter help seeking, which could increase health disparities in this community (Albuquerque et. al, 2016). For instance, a transgender woman might avoid important healthcare if a provider has continually misgendered them in the past.

Often, LGBTQ+ people are forced to take a more assertive role in communicating their needs to their physicians, as physicians can be uncomfortable initiating discussions about sexual orientation and gender identity (Stein and Bonuck, 2001). This could have a direct impact on the well-being of LGBTQ+ patients, as effective patient–provider communication has been associated with improved treatment adherence, higher patient satisfaction, and overall improved health outcomes (Sherman, 2014).

Sherman et al. (2014a) report that lesbian, gay, and bisexual people fear rejection, judgment, homophobic behavior from providers, and disrespectful treatment of their partners. All of these factors can lead to a delaying or avoidance of healthcare. These patients also resent provider's assumptions of heterosexuality, with some reporting that their provider is not informed about issues related to LGB-care. For instance, Sherman

(2014a) found that very few providers ask questions relating to sexual orientation regularly, though there are recommendations to do so with all patients. In one study, it was found that provider's treatment planning was not adapted to be more culturally affirming even when aware of LGBTQ+ identities (Ruben et al., 2017). This suggests that healthcare providers might be unaware of how living as an LGBTQ+ person might impact their health and wellbeing.

Research on experiences of lesbians has found that 72%-80% of subjects have experienced discrimination due to their sexual orientation (Sherman, 2014a). This includes rough treatment during physical exams, disrespect for partners, and refusal of care (Mathieson, 1998; Stevens & Hall, 1990). In a study of lesbian women who are veterans, 10% of veterans experienced harassment from VA providers due to their sexual orientation, 10% reported they had been refused treatment from VA providers because of their sexual orientation, and 50% feared that they would be mistreated if their provider knew about their sexual orientation (Ruben et al., 2017). In contrast, a survey of over 1000 lesbian women found that women who were open about their sexual orientation were almost three times more likely to have routine cervical cancer screening than those who did not disclose (Sherman, 2014a). This suggests that women who were comfortable speaking openly with their provider about their sexual orientation were more likely to receive appropriate healthcare. This finding clearly demonstrates the relationship between provider cultural competence and an LGBTQ+ person's comfort in disclosing their identity, which has a direct link to their health outcomes.

While women are almost twice as likely as men to worry about negative reactions from healthcare providers as a result of sexual orientation disclosure, some studies have

suggested that gay men might also have challenges related to their sexual identity when seeking health care (Stein & Bonuck, 2001). In one study of gay men who were open about their sexual orientation with their doctors, only 14% reported that their provider had initiated the discussion about their sexual orientation (Sherman, 2014a). However, the men who had disclosed their sexual orientation were more likely to be checked for sexually transmitted infections and be given the Hepatitis A or B vaccinations (Sherman, 2014a). This again highlights the important link between effective patient-provider communication and appropriate healthcare interventions.

A survey of bisexual people found that only 33% of respondents felt comfortable telling their healthcare provider about their sexual orientation, and when they have, about half had experienced biphobia when accessing services (HRC). In one survey of transgender people, up to 80% of those surveyed indicated that they were fearful about being open about their transgender identity and reported distrust of the confidentiality of healthcare (Brown and Jones, 2016). While there is a need for more research in this area, these findings suggest that the bisexual and transgender communities might experience the most significant barriers to effective healthcare among the LGBTQ+ community.

Factor Example 4: Reduction in Health Services Utilization

The previous sections highlighted how discrimination by providers and lack of provider cultural competence as well as larger systemic factors can have a direct effect on the wellness of LGBTQ+ people. This section will explore the disparities in health service utilization among members of the LGBTQ+ community. These negative experiences can lead to a reduction in the rates of health service utilization by LGBTQ+ people, which

contributes to the health disparities in the LGBTQ+ population. This can be considered a proximal factor, as relates to the immediate context of an LGBTQ+ person's life.

There is an established trend in the literature that finds that LGBTQ+ people delay or avoid healthcare, including preventative care (Sherman, 2014a). There are documented rates of 25%-50% of lesbian women delaying or discontinuing healthcare, such as mammograms and cholesterol tests (Sherman, 2014a; Stein & Bonuck, 2001). Lesbian women are ten times more likely not to have had a Pap test and are four times more likely not to undergo mammography when compared with heterosexual women (Albuquerque, 2016). Lesbian women were less likely to have a pelvic examination in last 5 years relative to the general population, and lesbian women in their 40's were less likely to have received a mammogram (IOM, 2011).

Gay men are less likely to seek preventative care in comparison to heterosexual men (Wadsworth & McCann, 1992). Page (2004) found that bisexual men and women were less likely to seek help for issues related to sexual orientation as compared to lesbian and gay respondents. Lesbian, gay, and bisexual people were also found to have higher rates of emergency department use than the general population (Ruben et al., 2017; IOM, 2011). This could suggest that this population might delay necessary healthcare until the severity of their healthcare needs have reached a critical level.

Transgender people often fear seeking healthcare across the continuum of care, ranging from preventive care, to routine medical care, to emergency care (Brown & Jones, 2016). In one study, it was found that 28% of transgender people reported having postponed healthcare due to concerns about discrimination (Sherman, 2014a). Transgender people worry that their providers might lack confidence in addressing their

unique medical needs (Poteat, German, & Kerrigan, 2013). These are a few reasons that transgender people might delay or avoid healthcare.

An interesting finding is the relationship between internalized homophobia, which is a central component of Meyer's (2003) minority stress model, and health service utilization. It has been found that the presence of internalized homophobia within the LGBTQ+ population is another factor contributing to their less frequent use of health services. Moreover, shame and fear of reprisals after disclosure of sexual orientation have been associated with problems among gay and bisexual men (Albuquerque et al., 2016). Given that internalized homophobia can have a direct negative impact on mental health, as well as reduced utilization of health services, it is an important factor to consider. This is a clear example of a proximal stressor.

Summarizing LGBTQ+ People's Health Disparities

As the minority stress model proposes, the adverse experiences of LGBTQ+ people can have a direct impact on the well-being of this community (Meyers, 2003). These experiences can be more environmental (distal), or more immediate (proximal). The healthcare system and wider culture can be understood as a distal stressor, which can result in a fear of utilizing the system itself. More immediate negative experiences of healthcare, including discrimination by healthcare providers, are understood as a proximal stressor. In these ways, both the healthcare system and individual health providers can contribute to the minority stress of LGBTQ+ people.

As explored, an increase in minority stress can have a direct result on the mental and physical well-being of LGBTQ+ people. In the following section, I outline some attempts

that have been made to measure and reduce minority stress and health disparities in the LGBTQ+ population.

Measuring & Reducing Minority Stress in LGBTQ+ People

Measuring Minority Stress

Given its demonstrated link to negative health outcomes, measuring minority stress in LGBTQ+ people has become an important research area. There have been a number of attempts to measure the experiences of minority stress in the LGBTQ+ population. Many of these attempts, however, have measured specific experiences of minority stress such as discrimination and harassment. Such measures include the Gay-related Stressful Life Events Scale (Rosario, Schrimshaw, Hunter & Gwadz, 2002) and the Heterosexist Harassment, Rejection and Discrimination Scale (Szymanski, 2009).

In contrast to these measures which capture only certain aspects of minority stress, a questionnaire developed by Lewis et al. (2001) captures a broader range of stressors. This includes factors such as visibility/outness, lack of societal rights, violence, fear of HIV/AIDS, and internalized homonegativity. In their analysis of this measure, Balsam et al. (2013) note some limitations, such as the fact that it does not distinguish between current and lifetime stressors. An additional limitation is that it was developed on a sample of largely cisgender, white, gay and lesbian people. These limitations drove Balsam et al. (2013) to develop a measure of minority stress which would fill these identified gaps in the literature, the Daily Heterosexist Experiences Questionnaire.

The Daily Heterosexist Experiences Questionnaire

With the awareness of minority stress in the LGBTQ+ community, as well as the aforementioned gaps in the literature relating to measures of minority stress, Balsam et al.

(2013) conducted the Rainbow Project. The Rainbow Project was a mixed-methods study of LGBTQ+ adults aimed at identifying the range of stressors experienced by LGBTQ+ people in order to develop a self-report questionnaire based on these responses. What resulted was the Daily Heterosexist Experiences Questionnaire (DHEQ), a 50-item questionnaire that measures both occurrences of heterosexist experiences as well as the resultant subjective distress of those experiences.

The DHEQ is a promising measure of minority stress among LGBTQ+ people, which will be described in detail in the methods section of the current research project. As will be presented in detail, the DHEQ could also be adapted to provide information relating to the specific experiences of LGBTQ+ people as it relates to their healthcare. This is the focus of the current research project. A questionnaire will be created through this research to help assess the minority stress experienced by LGBTQ+ people by their healthcare providers and the healthcare system generally, which could provide a useful tool for understanding and addressing the health disparities found in the LGBTQ+ community.

9 Factor Solution & Connection to Current Study

In the development study of the DHEQ, Balsam et al. (2013) identified that a 9-factor solution relating to minority stressors best fit the data. These factors are presented in order to clarify the specific domains of minority stress that are to be studied in this research project. These factors, as stated by Balsam et al. (2013), are as follows:

Figure 2

Factors in DHEQ (Balsam et al., 2013)

1) Discrimination/Harassment	6) Family of origin

2) Victimization	7) Gender Expression
3) Vigilance about anti-LGBT attitudes/behaviors	8) Parenting
4) Isolation	9) HIV/AIDS
5) Vicarious trauma	

It is hypothesized that there will be significant overlap between these factors and the themes identified as relevant to LGBTQ+ people's healthcare experiences in the current study.

Summary

Figure 3

Minority Stress & Health Disparities Pathway

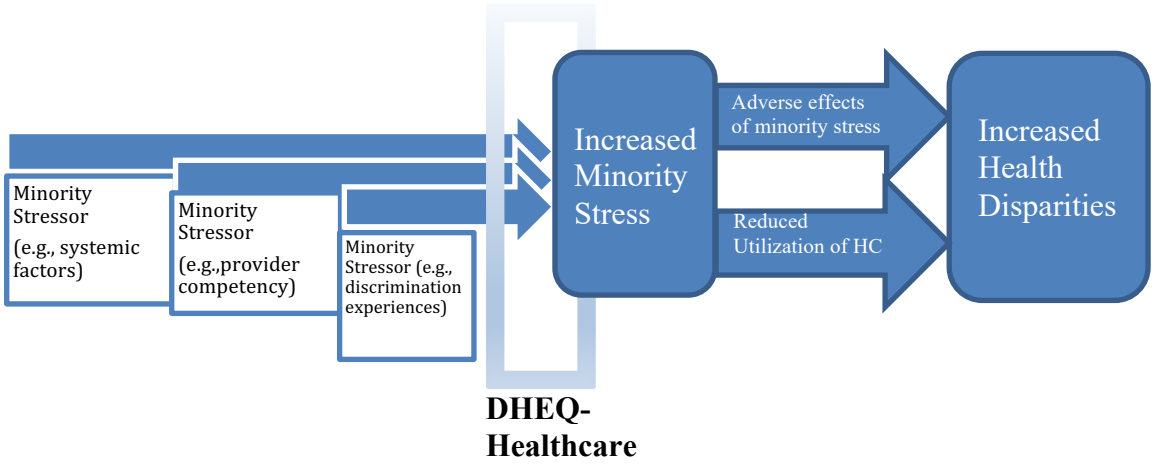


Figure 3 is included as a summary of the overarching aims of the current project. There are many minority stress experiences faced by LGBTQ+ people in healthcare settings, indicated on the left of the figure as arrows which serve to increase overall minority stress. This increased minority stress can have adverse health impacts, as well as reduce utilization of healthcare, which both serve to increase health disparities. While not designed to be an intervention in and of itself, the DHEQ-H could collect valuable information on the nature of these healthcare-based minority stress experiences. Ultimately, this deeper understanding of minority experiences in healthcare settings could inform an improvement in practices that could interrupt the above pathway, ultimately reducing health disparities in the LGBTQ+ community.

Chapter 3: Methods

This study employed a mixed-methods approach in order to adapt the Daily Heterosexist Experiences Questionnaire (DHEQ) for use in a healthcare setting. This methodology largely mirrors the methodology employed by Balsam et al. (2013) in their development of the DHEQ. This mixed-methods design is known as the Exploratory Design, which is a two-phase study design wherein the first method (qualitative) is used to inform the second method (quantitative) (Creswell, J. W., 2018). It has been cited as particularly useful when a researcher needs to develop and test an instrument, which is the aim of the current study (Creswell, J. W., 2018). An overview of the development of the DHEQ is presented, including key characteristics of the questionnaire and key findings from the development of the DHEQ by Balsam et al. (2013).

The adaptation of this questionnaire consisted of two phases. **Phase 1** consisted of qualitative interviews with members of the LGBTQ+ population who have sought healthcare in the past year. This phase informed the initial adaptation of the DHEQ. **Phase 2** included 1) cognitive debriefing sessions to assess initial face validity and 2) a cross-sectional survey administration of the adapted measure and an assessment of the psychometric properties of the DHEQ-H. The key characteristics and key findings from the DHEQ development by Balsam et al. (2013) are presented, followed by a detailed research methodology for both phases of this questionnaire adaptation.

Key Characteristics of the Daily Heterosexist Experiences Questionnaire

As described, the Daily Heterosexist Experiences Questionnaire (DHEQ) has utility for adaptation to the healthcare setting as it measures key stressors experienced by LGBTQ+ people. Specifically, the DHEQ measures how these stressors impact LGBTQ+ people's lived experience, focuses on a clearly identified time frame, and has proven utility across LGBT subpopulations. The following are descriptions of these key characteristics of the DHEQ. The DHEQ is included as Appendix D in this document.

1) *Stressors experienced by LGBTQ+ people*: The DHEQ seeks to identify a variety of stressors experienced by LGBTQ+ people. The importance of using a measure that covers a range of stressors experienced by LGBTQ+ people is demonstrated through the link between minority stress and adverse health outcomes as identified in the preceding sections of this research study.

2) *Identification whether a stressor is experienced, and how much subjective stress it caused*: Identifying both (1) if a stressor is experienced and (2) the subjective stress experienced is a unique and important contribution of the DHEQ. Measuring subjective

stress (or proximal stress) is important as subjective stress is understood as a component of minority stress, which is linked to adverse health outcomes.

3) *Assessment within a clearly specified time frame:* Assessment within a clearly specified time frame (within the past 12 months) adds specificity to the participant's responses.

4) *Usability across LGBTQ+ subpopulations:* The DHEQ includes items normed on a relatively diverse sample and includes items unique to the experiences of gay men, lesbian women, bisexual people, and transgender people. Though there are some questionnaires that address LGBTQ+ stress generally, there are none which address the needs of samples diverse in sexual identity, gender identity, and race/ethnicity (Balsam et al., 2013). The study by Balsam et al. (2013) included a diverse population in terms of race (9.3% identified as African American, 12.7% as Latino/Latina, 10.2% as Asian/Pacific Islander, 0.8% as American Indian, 52.5% as White, and 14.4% as biracial or multiracial), gender identity (41.2% identified as female, 44.5% as male, 2.5% as female to male transgender, 8.4% as male to female transgender, and 3.4% as other) and sexual orientation (58.5% identified as lesbian or gay, 15.3% as bisexual, 14.4% as queer, 1.7% as two-spirit, and 3.4% as other). This usability across subpopulations will contribute to the generalizability of the current research.

Key Findings of the Daily Heterosexist Experiences Questionnaire

Balsam et al. (2013) identified a number of findings in their analysis of the findings from the development of the DHEQ. Participants reported LGBTQ+-related stressors that were both distal and proximal, which is in line with minority stress theory. As an example of a distal stressor, many participants reported stressors related to gender expression,

which is consistent with the literature indicating that those in the LGBTQ+ community who are gender-nonconforming have more discrimination experiences (Hendricks & Testa, 2012). An example of a proximal stressor includes isolation, which the research team found to be especially relevant to bisexual men and women in their study which the authors at least partially attribute to a relative lack of a visible, well organized bisexual community in most areas of the United States (Balsam et al., 2013).

As mentioned, Balsam et al. (2013) identified that a 10-factor solution best fit the data, which is presented above. This 10-factor model demonstrated good reliability (α = .92) using all 50 items. Furthermore, moderate-high reliability for each subscale was found: Gender expression (α= .86), Vigilance (α= .86), Parenting (α= .83), Harassment and Discrimination (α= .85), Vicarious trauma (α= .82), Family of Origin (α= .79), HIV/AIDS (α= .79), Victimization (α= .87), and Isolation (α= .76).

Balsam et al. (2013) identified moderate correlations between measures of psychological distress, including depression, anxiety, PTSD, perceived stress, and discrimination. The total score of the DHEQ and the following variables were found to be moderately correlated: depression (r= .41), anxiety (r= .42), PTSD (r= .54), perceived stress (r= .33), and discrimination (as measured by two questions; r= .34 and .44).

Lastly, specific gender and sexual identities were identified as significant predictors of subscale scores. Women indicated more distress on measures of gender expression, parenting, vicarious trauma, and family of origin subscales. Balsam et al. (2013) indicate that this is in line with the established cultural relevance of gender expression in lesbian and bisexual communities. In contrast, men displayed more distress on victimization and HIV/AIDS subscales, which is in line with men's higher risk of LGBTQ+ specific

victimization (Balsam et al., 2013). Lesbian and gay people endorsed higher rates of distress than bisexual people on discrimination/harassment and family of origin subscales, and lower rates of distress on isolation subscales. As noted by Balsam et al. (2013), bisexual men and women might be less open about their sexuality and thus might be less visible as sexual minorities, therefore this sense of isolation might differ from experiences of other sexual minorities.

These key findings establish the utility of the DHEQ as an effective measure for the measurement of the impacts of minority stress on LGBTQ+ people. Given these identified strengths and clinical relevance, the DHEQ is an ideal measure for adaptation for use in measuring how minority stress experiences might manifest within a healthcare setting.

Adaptation of the Daily Heterosexist Experiences Questionnaire

As mentioned, this study employed an exploratory mixed-methods approach in order to adapt the DHEQ for use in the healthcare settings. The study began with consultation with a panel of experts on the topics of both of LGBTQ+ health and the creation/adaption of questionnaires, and then was conducted in two phases.

Panel of Expert Consultation

A panel of experts was identified and interviewed regarding this questionnaire adaptation. This panel included members of the committee associated with this dissertation project and a member of the LGBTQ+ community who has sought healthcare in the past year. This panel assisted in developing the initial adaptation that was used during the cognitive debriefing sessions of Phase 1 of the study.

Phase 1: Qualitative Interviews

Phase one included individual semi-structured qualitative interviews. The qualitative interviews were conducted to achieve an initial understanding of the experiences of LGBTQ+ people in healthcare settings. The existing DHEQ was presented. An interview guide was utilized during these interviews and is included as Appendix B. This information was used to inform additional adjustments of the DHEQ for use in a healthcare setting. This phase addressed Specific Aim 1 and 2, which involved developing questions relating to experiences of heterosexism by LGBTQ+ people and adapting the DHEQ.

Participants: Five individual qualitative interview participants were recruited for this phase. Individual interviews were chosen as they are more effective, time-efficient, and protect the confidentiality of LGBTQ+ patients, especially as it relates to their healthcare history. It was intended that private interviews would allow study participants to feel more open and honest in discussing their healthcare experiences, which could allow for more accurate and representative information for the current research project.

Recruitment: A convenience sample was used for this portion of the current research project. Recruitment took place at a community mental health center in the San Francisco Bay Area aimed at providing mental health services for LGBTQ+ people. Specific times were set up for individual on-site drop-in interviews. Posters describing the study were used to identify potential participants. An example of a poster is included in Appendix C.

Inclusion/Exclusion: Participants were eligible to participate if they self-identify as LGBTQ+, speak English fluently, and have received healthcare services within the past year. Specifically, participants should have had at least one in-person interaction with a

healthcare provider in the past year. Participants must have been over the age of 18 at the time of the interview, which is consistent with the original DHEQ development. Participants were not eligible to participate if they did not self-identify as LGBTQ+, were not proficient in English, had not received healthcare in over 12 months, or were under the age of 18 years.

Analysis: Individual interviews were audio recorded. Audio files were transcribed verbatim, coded, and analyzed. This information was password protected and available only to the research team in order to protect the confidentiality of the research participants.

The files were analyzed using thematic analysis procedures. Thematic analysis was chosen due to its accessible and theoretically flexible approach to analyzing qualitative data (Braun & Clarke, 2006). Using information gathered from the thematic analysis informed the final adaptation of the DHEQ for use in the healthcare setting. The following is a description of the process by which data was analyzed for the purposes of this dissertation. These steps are adapted from an overview of thematic analysis by Braun & Clarke (2006).

First, initial themes were identified. Then, relevant features of the data were reviewed in a systematic way in order to collect data to develop initial codes. For instance, the code of "Provider displaying discomfort" was developed in this study. These codes were then grouped in terms of themes. Using this example, a larger theme of "Lack of provider knowledge" was developed. These themes were then reviewed, ensuring that the coded data and the entire data set are represented. The themes were then clearly defined, and a name was given for each theme (i.e., Lack of Provider Knowledge). Finally, these themes

were used help answer the current research question. In this case, these themes were used to adapt the Daily Heterosexist Experiences Questionnaire, resulting in a question such as "In the past 12 months, how often have you had to educate providers about your LGBTQ+ identity and healthcare needs?"

Phase 2 – Psychometric Evaluation of the Adapted Questionnaire

Phase 2 was conducted in two steps and consisted of the adaptation and psychometric evaluation of the DHEQ-H which was previously developed in Phase 1 of this study. This addresses Specific Aim 3, which relates to the assessment of the DHEQ-H's psychometric properties.

Step 1 consisted of cognitive debriefing sessions with two participants. The cognitive debriefing sessions consisted of an item-by-item review of the DHEQ-H to determine whether participants interpret the items as they are intended. Based on these sessions, additional changes to the questionnaire were made prior to administration to a larger sample. The recruitment strategy utilized in Phase 1 was replicated in this step.

Step 2 consisted of administering the adapted questionnaire to a larger sample of LGBTQ+ people. As aforementioned, this sample was recruited using various listservs and social media efforts relevant to the LGBTQ+ community. This convenience sampling methodology was utilized for feasibility purposes, and as will be discussed in the limitations section, this sample cannot be said to be representative of the general LGBTQ+ community.

In addition to the DHEQ, other measures were included. These included measures of demographic information, mental functioning, and physical functioning. This survey administration of the adapted measure was used to collect valuable data used to establish

reliability and validity for the DHEQ-H. This study design is cross-sectional, as it gathered information relating to the experiences of a diverse set of LGBTQ+ people at a certain point in time.

Measures

Measure of Demographic Information. The following demographic information was gathered in order to describe the sample utilized in this measurement adaptation: age, sexual orientation, gender and gender identity, race/ethnicity, educational level, current income, relationship status, and information pertaining to their healthcare care. The healthcare specific questions will include information about the following: health insurance status, what type of healthcare was received (e.g., mental health, primary care doctor, etc.), as well as a checklist of mental health and physical health complaints. The measure of Demographic Information is included in the Appendix as Appendix I.

Perceived Stress Scale. The Perceived Stress Scale (PSS; included as Appendix F) was designed to measure the degree to which situations in one's life are appraised as stressful. In a study by Cohen, Kamarck, and Mermelstein (1983), the validity and reliability of the PSS were examined in a sample of three groups. The measure was found to have adequate internal and test-retest reliability and was found to correlate in the hypothesized manner with a range of behavioral criteria. There is a reported alpha of .84, .85, and .86 in the three samples. Additionally, small to moderate correlation between number of stressful life events and the PSS was found in all samples. The PSS was found to be a better predictor of various health outcomes than a stressful life-event score. These properties make the PSS a valuable tool for measuring stress for the purposes of the current research, especially given

the central role that stress is hypothesized to play in the health outcomes of LGBTQ+ people.

The PTSD Checklist-Civilian Version (PCL-C). The PTSD Checklist-Civilian Version (PCL-C), included as Appendix G, is a self-report instrument that was designed to assess the symptoms of posttraumatic stress disorder. In a study that measured the psychometric properties of the PCL-C by Ruggiero et al. (2003), it was found that the PCL has strong internal consistency, as well as good test-retest reliability. Convergent validity was also established, as the PCL-C correlates highly with other measures of PTSD. The authors note that the PCL corresponds strongly to the specific DSM-IV criteria for PTSD, rather than wider diagnostic criteria (of note: the DSM 5 diagnostic criteria is used in current times though PCL-C development corresponded with DSM-IV). Thus, the authors suggest that the PCL-C be used primarily as a brief screen for PTSD. This utility as a brief screen, along with its established psychometric properties, make it an ideal screening tool for traumatic stress in the current study. An example question is as follows: In the past month, how much have you been bothered by repeated, disturbing dreams of a stressful experience from the past? The response categories include (1) not at all, (2) a little bit, (3) moderately, (4) quite a bit, and (5) extremely.

Short Form 36 Questionnaire. The Short Form 36 Questionnaire (SF-36) developed by Ware (1993) and partially included as Appendix E was chosen as a general measure of physical and mental wellness. The SF-36 is a health survey with scales measuring 1) physical functioning 2) role limitations due to physical health problems 3) role limitations due to emotional problems 4) energy/fatigue 5) emotional functioning 6) social functioning 7) pain and 8) general health perceptions. It was developed as a tool to gather a profile of

scores useful in understanding population differences in physical/mental health status, as well as health burdens of medical conditions, and the effect of treatments on general health status. This tool will provide valuable health-related information to be used in the adaptation of the DHEQ.

A sample question from the SF-36 is as follows: "During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)? The response categories are: all of the time, most of the time, some of the time, a little of the time, none of the time. According to Ware (1993), the minimum standards of reliability for purposes of group comparisons were satisfied in all patient subgroups and for all SF-36 scales. The coefficients varied across groups, with a range from .65-.94. Validity was established by Ware (1993).

The following is a table offering brief descriptions of each subscale of the SF-36, adapted from Ware & Shelborne (1992).

Table 1

SF-36 Subscales (taken from Ware & Shelborne, 1992)

	Low	High
Physical Functioning	Limited a lot in performing all physical activities (e.g., bathing or dressing)	Performs all types of physical activities including most vigorous w/o limitations due to health
Role Limitations d/t Physical Health Problems	Problems with work or other daily activities as a result of physical health	No problems with work or other activities as a result of physical health
Role Limitations d/t emotional problems	Problems with work or other daily activities as a result of emotional problems	No problems with work or other daily activities as a result of emotional problems, past 4 weeks

Energy/Fatigue	Feels tired and worn out all of the time	Feels full of pep and energy all of the time
Emotional Functioning	Feels nervousness and depression all of the time	Feels peaceful, happy, and calm all of the time
Social Functioning	Extreme and frequent interference with normal social activities d/t physical and emotional problems	Performs normal social activities w/o interference d/t physical or emotional problems
Pain	Very severe and extremely limiting pain	No pain or limitations due to pain, past 4 weeks
General Health Perceptions	Believes personal health is poor and likely to get worse	Believes personal health is excellent

Brief Resilient Coping Scale: The Brief Resilient Coping Scale (BRCS; included as Appendix H) was included in the current study to measure participants adaptive coping strategies, which I hypothesized would be negatively correlated with higher scores on the DHEQ-H. The BRCS was developed by Sinclaire & Wallston (2004) as a 4-item questionnaire designed to measure people's ability to cope with stressful in an adaptive manner. The BRCS has good reliability (α=.69), which was determined sufficient for a 4-item scale. Scores correlated as predicted with other measures of coping.

The questions, scored on a 5-item Likert scale (1, does not describe me at all- 5, describes me very well), include topics such 1) looking for creative ways to alter difficult situations, 2) believing you can control your reaction to what happens to you, 3) believing you can grow in positive ways by dealing with difficult situations, and 4) actively looking for ways to replace the losses encountered in life.

Participants:

According to Field (2009), the common rule for identifying the target number of participants for a study of this kind is to have 10-15 participants per variable. This is true

up to a total of 300 participants, beyond which the test parameters tend to be stable regardless of the participant to variable ratio. While a sample size of 300 is ideal, it was determined by the dissertation committee that 100 participants was a more feasible target n for the purposes of this dissertation project primarily due to the time-sensitive nature of this project.

Recruitment:

Various online sources were used to assist in recruitment. Such resources included the listserv for APA Division 44, Society for the Psychology of Sexual Orientation and Gender Diversity, as well as the Facebook page of LGBTQ+-focused community mental health centers. Paid Facebook advertisements were also utilized to assist in recruitment, included as Appendix J. An online link was sent to potential participants.

Inclusion/Exclusion:

The inclusion/exclusion criteria for the quantitative portion of the study were largely similar to the criteria of the qualitative study. People were eligible to participate in the quantitative portion of the study if they self-identify as LGBTQ+. Participants must speak English fluently. They must have received healthcare services in the past year. They must also have access to the internet in order to fill out the online survey. They also must be at least 18 years of age or older. Participants were not eligible to participate if they did not self-identify as LGBTQ+, did not speak English fluently, had not received healthcare in over 12 months, or were not 18 or older at the time of participation.

Analysis

SPSS was utilized to conduct data analysis. This information was password protected and available only to the research team in order to protect the confidentiality of the research participants.

Reliability: Cronbach's alpha was used as a reliability measure of the adapted questionnaire. Alpha is commonly used in the development of scales intended to measure affective constructs, as well as a general indicator of instrument quality (Taber, 2017). It is frequently described as a descriptor of reliability and internal consistency. A high value of alpha offers a guard against specific test items being unique that they elicit a response pattern unlike any of the other items (Taber, 2017). An alpha coefficient of .70 or above was used as evidence of good reliability of the adapted measure.

Validity: Construct validity was analyzed in the psychometric properties phase of the current research. Construct validity refers to the ability of a particular question to measure the construct it intends to. In other words, it measures how well the construct was operationalized (Drost, 2011). One component of construct validity is face validity, which is subjective judgment of how well a question operationalizes a specific construct (Drost, 2011). This was assessed via the cognitive debriefings described above.

Another component of construct validity is content validity, which is a means of ensuring that the content of a test corresponds to the content of the construct it was designed to cover (Drost, 2011). Convergent validity refers to how much a scale will relate to another measure of the same scale. For instance, how much do the DHEQ-H questions relating to trauma correspond to the questions on the PCL-C. Discriminant validity is the opposite of convergent validity; it refers to the ability of a set of questions to measure a specific construct, and not some other construct. The following is a table of the constructs

measured by the DHEQ, the measures to be used in order to assess the validity of this construct, as well as the expected relationship between these measures. These expected relationships are based off of the literature, as presented in the literature review.

Table 2

Plan for Establishing DHEQ-H validity using mixed-methods approach

Validity		
Face Validity	Cognitive Debriefing	
Convergent/Discriminant Validity	**DHEQ Subscale**	**Additional Measures**
Convergent **significant positive*	Gender expression	PLC-C, PSS, SF-36 (emotional fx)
Discriminant **non-significant*	Gender expression	BRCS
Convergent **significant positive*	Vigilance	PLC-C, PSS, SF-36 (emotional fx)
Discriminant **non-significant*	Vigilance	BRCS
Convergent **significant positive*	Harassment and Discrimination	PLC-C, PSS, SF-36 (emotional fx)
Discriminant **non-significant*	Harassment and Discrimination	BRCS
Convergent **significant positive*	Vicarious trauma	PLC-C, PSS, SF-36 (emotional fx)
Discriminant **non-significant*	Vicarious trauma	BRCS
Convergent **significant positive*	Victimization	PLC-C, PSS, SF-36 (emotional fx)

Discriminant **non-significant*	Victimization	BRCS
Convergent **significant positive*	Isolation	PLC-C, PSS, SF-36 (emotional fx)
Discriminant **non-significant*	Isolation	BRCS

**Denotes <u>expected</u> relationships between variables*

Construct validity was further assessed by conducting exploratory factor analysis. Exploratory factor analysis is a type of construct validity as it is used to analyze if items are loading onto specific factors. It was designed for and is most appropriate for use in exploring a data set; it is not designed to test hypotheses or theories (Costello & Osborne, 2005). One of the main uses of factor analysis, as described by Field (2009), is to construct a questionnaire to measure an underlying variable, such as in this adaptation of the DHEQ. Furthermore, factor analysis helps to determine groups or clusters of variables. Put another way, factor analysis helps to identify the most efficient way for a set of questions to measure a construct by reducing the number of variables (Rosen, 2013).

Predictive and criterion validity were also assessed. Predictive validity is the ability of a test to predict a certain criterion in the future. This was assessed by conducting multiple linear regression analyses using the DHEQ as the independent variable, and the measures of depression, anxiety, trauma, and general health and mental health as our dependent variables (Drost, 2011).

Chapter 4: Results

Phase 1 (Qualitative Study) Results

Semi-structured interviews were conducted with five participants in Phase One of this study. These interviews were recorded and transcribed. Thematic analysis was conducted. The identified themes are reported in Table 3.

In alignment with Meyer's minority stress theory, stressors were categorized as distal (external stressful events) and proximal (internal experiences contributing to stress). It is worth underscoring that distal stressors can become increasingly proximal as they increase in relevance to individual people, and thus it can be difficult to clearly delineate

between these types of stressors.

The identified stressors are presented in Table 3.

Table 3

Stressors identified using thematic analysis of qualitative interviews with five participants

Distal Stressor	**Sub Theme**	**Sample Quote**
1. Encountering heteronormativity	-Reinforcement of gender stereotypes -Misgendering -Poorly worded forms	"Yeah I've only had one person of all my experiences in 6-7 years ask me my pronouns"
2. Lack of Provider Knowledge	-Questioning sexual orientation -Conflating sexual & gender identities -Provider displaying discomfort/having to comfort providers -Being outed by medical staff -Not receiving proper medical care	"Sometimes my provider does things that shows me they don't understand my gender"
3. Having to alter care	-Providing feedback to providers/systems -Having to leave/avoid providers -Lack of appropriate providers or LGBTQ+ providers	"Like it would bring me a lot of anxiety and stress, like how to figure out, okay, who did I see before. I want to make sure I do not see her again"
Proximal Stressor	**Sub-theme**	**Quote**
1. Hypervigilance	-Self-policing behaviors -Assessing provider's comfort -Assessing other patient's comfort	"Like if ever it comes up in like at the doctor's office or something like I already have, like, kind of bracing myself for a reaction"
2. Feeling invisible	(n/a)	"Like a space that's really centering and prioritizing folks who are straight like it was just very, like I'm just like, not feeling seen, and feeling overlooked"

3. Lack of trust in provider/system	(n/a)	"Which is ***** really like, if I didn't advocate for myself. Like I wouldn't have known what was wrong. It's like, it's like a safety thing"
4. Other emotional experiences	-Anger -Frustration -Disappointment	"I cry, I rant a lot, so much ranting. Yeah, I mean, it just builds on my rage, and then I feel very rageful about the system"

Distal Stressors

Regarding distal stressors, the themes of encountering provider heteronormativity, lack of provider knowledge, and having to alter care were identified. There were multiple sub-themes in the category of encountering heteronormativity in healthcare settings. For instance, participants identified a culture of gender insensitivity in healthcare settings, where providers and/or other aspects of the healthcare setting (e.g.,, forms, online health charting systems) used highly gendered language, or explicitly used the incorrect gender pronouns. This cultural overlay of insensitivity regarding the full spectrum of gender is distal in the unwelcoming and invalidating environment that it creates, though can become a proximal stressor to the extent that it causes direct stress to the individuals encountering this culture.

Another broader challenge that participants identified was in regard to a lack of provider knowledge on topics of gender and sexuality. This is a distal stressor in that the educational establishment which trains providers has frequently failed to adequately train providers to be aware of and sensitive to these topics. Specific ways that participants experienced a lack of provider knowledge included instances of providers questioning participant's sexual orientation or displaying confusion or discomfort in discussing topics related to gender/sexuality. One participant who identified as non-binary described being

outed by medical staff when picking up birth control pills, which is a clear proximal stressor, though also distal in that the provider was seemingly unaware of the best way to approach this encounter.

A third category of distal stressors relates to receiving inappropriate care and having to alter care. Participants described difficulty providing feedback to systems about the inadequate care they had received. One participant described not knowing how to ensure they did not see a provider with whom they had previously had a negative experience with. This again caused significant proximal stress, though is also distal in that the system did not provide this participant with a clear way to express their concern and provide a way to not see this provider. Similarly, multiple participants described difficulty finding providers who were members of the LGBTQ+ community, which likely reflects a larger structural issue in training and recruiting providers from minority populations.

Proximal Stressors

As mentioned, these identified distal stressors often created proximal stress for the participants interviewed for this research. Additional areas of proximal stress in healthcare settings identified through the semi-structured interviews included hypervigilance, feeling invisible, a lack of trust in providers/the healthcare system, and negative feelings towards the healthcare system.

Many participants identified a feeling of being "on edge" and hypervigilant in healthcare settings. One participant described "bracing themselves" for a reaction from their providers if their gender identity came up in the encounter. Another described having to "dance" with healthcare providers to get a sense of their level of comfort in discussing topics relating to their sexuality. Notably, others identified having to monitor themselves in

shared spaces (e.g.,, waiting rooms), highlighting that stress in healthcare settings is not necessarily directly related to providers themselves.

Another overarching theme that was identified by many participants was regarding a sense of being invisible in healthcare settings. This reflects the internal experience of patients which results from more systemic factors, such as a culture of heterosexism, encountering culturally insensitive providers, and having minimal LGBTQ+ providers available. A lack of visible displays of LGBTQ+ people (e.g., posters in waiting rooms, etc.) also contributed to participant's sense of being invisible in such settings. Similarly, this invalidating environment contributed to another proximal stressor—participant's lack of trust in the healthcare system and with their healthcare providers. Other proximal experiences such as feelings of sadness and anger were also identified by participants. One participant expressed a feeling of rage at the system given their many negative experiences as it related to their sexual orientation.

Adaptation of the DHEQ: The DHEQ-Healthcare (DHEQ-H)

The qualitative interviews informed the adaptation of the DHEQ, hereafter referred to as the DHEQ-Healthcare (or DHEQ-H). Our original hypothesis was that the nine themes identified by Balsam et al. (2013) would be retained in the adaptation of the DHEQ. However, the themes of parenting, HIV/AIDS, and family of origin were removed given they were not identified as themes in the qualitative interviews. This left us with the following six hypothesized subscales indicated in Table 4.

Table 4

Subscales for the DHEQ-H retained after thematic analysis

1) Discrimination/Harassment

2) Victimization
3) Vigilance about anti-LGBT attitudes/behaviors
4) Isolation
5) Vicarious trauma
6) Gender Expression

Adapted Subscales

In adapting this questionnaire, the language of each of the DHEQ items which comprised these themes on the DHEQ was adjusted. Specifically, the language was adjusted from a question referring to a general experience (e.g., "watching what you say and do around heterosexual people") to include language specific to healthcare settings and/or healthcare providers (e.g., "watching what you say and do when around providers you perceive to be heterosexual"). Examples of these adapted questions are included in Table 5. A total number of 28 items were included in the DHEQ-H.

Table 5

Examples of adapted questions for each subscale of the DHEQ-H

Subscale	**DHEQ Example**	**DHEQ-H Question**
Vigilance	Watching what you say and do around heterosexual people	Watching what you say and do when around providers you perceive to be heterosexual
Harassment and Discrimination	Being treated unfairly in stores or restaurants because you are LGBT	Being treated unfairly in healthcare settings because you are LGBT
Gender Expression	Feeling invisible in the LGBT community because of your gender expression	Feeling invisible in healthcare settings due to your gender expression

Victimization	Being raped or sexually assaulted because you are LGBT	Being raped or sexually assaulted by a healthcare provider because you are LGBT
Vicarious Trauma	Hearing about LGBT people you know being treated unfairly	Hearing about LGBT people you know being treated unfairly by a healthcare provider
Isolation	Difficulty finding a partner because you are LGBT	Difficulty finding a provider because you are LGBT

Additional Scales Developed

The themes identified in the qualitative portion of this study suggested that additional scales beyond those of the DHEQ-H were warranted. These additional scales included questions relating to the topics of sexual orientation, experiences of microaggressions and educating providers. One item relating to the experiences of the romantic partners of participants was also included. Examples of questions including in these additional scales are included in Table 6. There were three questions in the additional category of educating providers, six in the category of experiencing microaggressions, one item regarding romantic relationships, and five in the category of sexual orientation.

As the questions related to sexual orientation were direct adaptations of the questions on the original DHEQ relating to gender expression, this additional scale can be considered an addendum to the DHEQ-H. The other three scales (microaggressions, educating providers, and romantic relationships) all constitute a separate questionnaire altogether. This additional scale is titled the DHEQ-Healthcare-Expanded, or DHEQ-H-E.

Table 6

Example Questions from the DHEQ-H-Expanded

Additional Scales Developed	Example
Sexual Orientation	Feeling invisible in healthcare settings due to your sexual orientation
Experiences of Microaggressions	Experienced a microinvalidation (communications that exclude, negate, or nullify the thoughts/feelings/experiences, e.g., being misgendered) by a healthcare provider
Educating Providers	Having to educate providers about your LGBTQ+ identity and healthcare needs
Romantic Relationships	Thinking about your romantic relationships, how much do you feel you and your partner(s) are treated differently by healthcare providers because of your LGBTQ+ identity?

Phase 2 Results – Psychometric evaluation

Phase 2 was aimed at assessing the psychometric properties of the DHEQ-H and DHEQ-H-E. The DHEQ-H was distributed via a Qualtrics Survey. A community mental health center in the San Francisco Bay Area helped to distribute the Qualtrics survey. Additionally, listservs such as APA Division 44 were used to distribute the survey. Facebook ads were also utilized to assist with recruitment. A total of 234 people attempted to complete the survey. Participants who did not complete at least 80% of the questions related to the DHEQ-H were removed. Of the 234 responses, 158 were retained. While this number does satisfy the target n of 100, it is also true that only about 70% of the total number of participants were included in the analysis. There are a number of reasons why people may have been unable to complete the entirety of the survey. It is perhaps most likely the case that the length of the survey was too burdensome for participants, as many failed to fill out the final third of the entire survey.

Demographics

Table 7 includes the demographics of the 158 participants included in the analysis. The average age of the sample was 27.1 years. The majority of the sample (n= 121; 76.6%) were assigned female at birth. Current gender identity was variable, with 32.9% (n=52)

identifying as female, 21.5% (n=34) as male, 13.9 (n=22) as FTM transgender, 1.9% (n=3) as MTF transgender, 15.8% (n=25) as nonbinary, 7.6% (n=12) gender queer, and an additional 5.1% (n=8) as something else (e.g. fluid, questioning). Regarding sexual orientation, 39.2% (n=62) identify as lesbian/gay/homosexual, 33.5% (n=53) as bisexual, 1.3% (n=2) as heterosexual, and 25.3% (n=40) as something else (e.g. asexual, pansexual).

Approximately half of the sample (n=83) identify as single currently. The majority (75.9%; n=120) reported an income of less than $60,000/year. Level of education was variable, with 32.3% (n=51) having completed some college, 32.3% (n=51) having completed college, and 22.8% (n=36) having completed an advanced degree.

Regarding racial and ethnic identity, the majority of the sample (72.2%; n=114) identified as non-Hispanic White or Euro-American. An additional 7.0% (n=11) identified as Asian/Pacific Islander, 3.8% (n=6) as Hispanic or Latino/Latina/Latinx, and 1.3% (n=2) identifying in each of the following categories: Black/African American, American Indian/Alaska Native, and Middle Eastern/Arab American. An additional 12% (n=19) identified as having a mixed-race background.

Table 7

Demographic information for the online distribution of the DHEQ-H

	Characteristic	*n*	*%*
Sex Assigned At Birth	Male	35	22.2
	Female	121	76.6
	Intersex	1	.6
	Total	157	100.0
Gender Identity	Female	52	32.9
	Male	34	21.5
	Transgender Male/Transman/FTM	22	13.9
	Transgender Female/Transwoman/MTF	3	1.9

	Gender Queer	12	7.6
	Non-Binary	25	15.8
	Something else (please specify)	8	5.1
	Total	156	100.0
Sexual Orientation	Lesbian, Gay, or homosexual	62	39.2
	Bisexual	53	33.5
	Straight or heterosexual	2	1.3
	Something else (please specify)	40	25.3
	Total	157	99.4
Relationship Status	Single	83	52.5
	Married	21	13.3
	In a domestic partnership, living together	19	12.0
	Partnered, not living together	8	5.1
	In a committed relationship	20	12.7
	Divorced	2	1.3
	Widowed	1	.6
	Status not included (please specify)	4	2.5
	Total	158	100.0
Annual Income	Less than $60,000	120	75.9
	$60,001 to $70,000	10	6.3
	$70,001 to $80,000	4	2.5
	$80,001 to $90,000	6	3.8
	$90,001 to $100,000	5	3.2
	Greater than $100,000	13	8.2
	Total	158	100.0
Highest Education	Some High School	3	1.9
	High School/GED	16	10.1
	Some College	51	32.3
	Bachelor's Degree	51	32.3
	Advanced Degree	36	22.8
	Total	157	100.0
Racial/Ethnic Identity	Black/African American	2	1.3
	Asian/Pacific Islander	11	7.0
	Non-Hispanic White or Euro-American	114	72.2
	Hispanic or Latino/Latina/Latinx	6	3.8
	American Indian or Alaska Native	2	1.3
	More than one race/ethnicity	19	12.0
	Middle Eastern/Arab American	2	1.3
	Other (please specify)	2	1.3
	Total	158	100.0

Health Information

Participant health information is reported in Table 8. The majority of participants were insured, and the majority of this sample reported having experienced symptoms of depression and anxiety in the past year. Over a third of participants reported having experienced panic attacks in the past year. Approximately a third reported PTSD symptoms in the past year, and a third reported gender-related concerns. A quarter of the sample reported an eating disorder. Over a third of the current sample reported suicidal thoughts, and 5.1% reported having attempted suicide in the past year. The majority of the sample reported having received mental healthcare in the past year, with about a third having seen a psychiatrist, two thirds having seen a therapist such as a marriage and family therapist or psychologist, and 13% having received another type of mental healthcare.

The current sample reported a number of physical health complaints. The most frequent physical health complaint was obesity, followed by arthritis and an STI other than HIV/AIDS. Almost half reported a health concern not listed on the questionnaire (e.g., asthma, chronic pain, high blood pressure). The vast majority saw a primary care provider in the past year, about half had seen a specialist, and a third had seen an urgent care provider.

Table 8

Health Information for participants in the online distribution of DHEQ-H

	Characteristic	*n*	*%*
Health Insurance Status	Insured	151	95.6
	Uninsured	7	4.4
	Total	158	100.0

Mental Health Complaints	Depression	130	82.3
	Anxiety	133	84.2
	Panic Attacks	63	39.9
	Suicidal Thoughts	60	38.0
	Gender-Related Concerns	56	35.4
	PTSD	53	33.5
	Disordered Eating	41	25.9
	Mania/Hypomania	18	11.4
	Other	17	10.8
	Bipolar Disorder	12	7.6
	Hallucinations	9	5.7
	Suicide Attempt	8	5.1
	Problematic Substance Use	7	4.4
	Homicidal Thoughts/Attempt	2	1.3
	Schizophrenia	0	0
Physical Health Complaints			
	Obesity	17	10.8
	Arthritis	16	10.1
	Other STI	14	8.9
	Diabetes	6	3.8
	Lung Disease	4	2.5
	Heart Disease	4	2.5
	Cancer	2	1.3
	Kidney	1	.6
	HIV/AIDS	1	.6
	Liver Disease	1	.6
	Dementia/Alzheimer's	0	0
	Other	72	45.6
Physical Healthcare	Primary Care	146	92.4
	Dentist	93	58.9
	Specialist	86	54.4
	Emergency Room/Urgent Care	52	32.9
	Other	12	7.6
Mental Healthcare	Therapist (e.g., MFT, psychologist)	100	63.3
	Psychiatrist	46	29.1
	Other	21	13.3

Reliability

Internal consistency was computed using Cronbach's α. Results are reported in Table 9. The overall reliability for the DHEQ-H was good (α=.90). Additionally, the reliability for each subscale

on the DHEQ-H were good. The subscales identified in the table below will be further explored in the subsequent section relating to factor analysis.

Table 9
Reliability of the DHEQ-H and Subscales

DHEQ-H-E	Cronbach's α
Educating Providers	.88
Sexual orientation	.78
Microinvalidations/insults	.63
Microassaults	.50

DHEQ-H	Cronbach's α
Gender Expression	.90
Vigilance	.88
Victimization	.86
Harassment	.70
Vicarious Trauma	.71
DHEQ-H Overall	.90

Reliability was also computed for each of the additional scales developed on the DHEQ-H-E, the majority of which demonstrated good internal consistency as indicated in Table 10. The subscale relating to Microinvalidations/insults was acceptable (α=.63). The subscale relating to microassaults demonstrated a lower reliability coefficient (α=.50), which indicates that there is no evidence for internal consistency for the questions which comprise this subscale.

Table 10

Reliability, DHEQ-H-E

Factor Analysis

Factor Analysis, DHEQ-H

The initial step of this phase of the current project involved conducting a factor analysis. As aforementioned, factor analysis helps to determine groups or clusters of variables, which is an aspect of validity. While more information relating to validity is reported below, factor analysis is reported at this point as this step allowed for the creation of the subscales which were used in subsequent analyses (as well as the reliability analyses above).

A six-factor solution was utilized given the six identified subthemes retained from the original DHEQ: Vigilance, Harassment and Discrimination, Gender Expression, Victimization, Vicarious Trauma, and Isolation. However, results indicated that a 5-factor solution best fit the current data, with the following subthemes emerging: Gender Expression, Vigilance, Victimization, Harassment, and Vicarious Trauma. Results from the factor analysis are reported in Table 11. After consultation with the literature, .5 was determined to be the chosen loading threshold for the current study as it has been determined to be indicative of a solid underlying factor (Costello & Osborne, 2005).

Table 11

Factor Analysis of DHEQ-H subscales, including subscale titles

Item	Gender Expression	Vigilance	Victimization	Harassment	Vicarious Trauma	Vicarious Trauma

Pretending that you are cisgender when with healthcare providers	.695					
People staring at you in a healthcare setting because you are LGBTQ+	.553					
Being treated unfairly in healthcare settings because you are LGBTQ+	.588					
Feeling invisible in healthcare settings due to your gender expression	.837					
Feeling like you are not welcome in healthcare settings because of your gender expression	.808					
Feeling uncomfortable when wearing your preferred clothing because of your gender expression when accessing healthcare	.791					
Being misunderstood by providers because of your gender expression	.823					
Difficulty finding a healthcare provider because you are LGBTQ+	.601					
Watching what you say and do when around healthcare providers who you perceive to be heterosexual		.774				

Pretending that you are heterosexual and/or have an opposite sex partner when with healthcare providers		.791					
Difficulty finding a healthcare provider who is LGBTQ+		.587					
Having very few healthcare providers you can talk to about being LGBTQ+		.670					
Hiding your LGBTQ+ identity from healthcare providers		.750					
Avoiding talking about your current or past relationships when you are accessing healthcare		.769					
Hiding part of your life from your healthcare provider		.744					
Been inappropriately touched by a healthcare provider because you are LGBTQ+			.934				
Being raped or sexually assaulted by a healthcare provider because you are LGBTQ+			.940				
Being called names such as “fag” or “dyke” in healthcare settings			.739				
Being verbally harassed in healthcare settings by people				.766			

you know (e.g., providers, family, friends, acquaintances) because you are LGBTQ+						
Being verbally harassed by strangers in healthcare settings because you are LGBTQ+				.692		
People laughing at you or making jokes at your expense in healthcare settings because you are LGBTQ+				.634		
Being harassed in healthcare settings because of your gender expression				.564		
Hearing people (healthcare providers, other staff, other patients, etc.) say negative things/make jokes about LGBTQ+ people in a healthcare setting					.768	
Hearing other people being called names such as "fag" or "dyke" in a healthcare setting					.789	
Hearing about LGBTQ+ people who you know being treated unfairly by a healthcare provider						.771
Hearing about LGBTQ+ people you don't know being treated unfairly by healthcare providers						.804

The first factor largely encapsulates items related to the gender expression of participants. While also a factor on the original DHEQ, there are a wider array of items (8) which loaded onto this factor in the current study, which is also labeled "Gender Expression" on the DHEQ-H.

A second factor, Vigilance, was identified and includes 7 items. These items broadly speak to experiences of being vigilant in healthcare settings, such as watching what one says or does when around providers you perceive to be heterosexual.

The third factor included three items that all pertain to experiences of victimization. One item, being called names such as "fag" or "dyke" in healthcare settings, is somewhat similar in nature to the items that encompass the fourth factor, Harassment. The Harassment factor (4 items) is comprised of questions that explicitly involve experiences of being harassed (e.g., "being harassed in healthcare settings because of your gender expression").

The fifth and final factor identified is related to Vicarious Trauma. While the questions pertaining to this factor loaded onto the 5th and 6th factors when a 6-factor analysis was conducted, it was determined that the 4 items which loaded on to each of these factors (two questions each) were very similar and could be understood as one singular factor. Each of these items relates to the experience of hearing about other LGBTQ+ people being mistreated in some manner.

Of the 28 items which were originally retained, two did not load onto any of the aforementioned factors, which are reported in Table 12 These items pertained to the

experience of being harassed in bathrooms due to gender expression in healthcare settings and feeling like one doesn't' fit in with other LGBTQ+ people in healthcare settings.

Table 12

Items dropped from DHEQ-H after conducting factor analysis

Dropped Items
Being harassed in bathrooms in healthcare settings because of your gender expression
Feeling like you don't fit in with other LGBTQ+ people in a healthcare setting

Factor Analysis, DHEQ-H-E

As mentioned above, four additional scales were developed after completing the qualitative portion of the current study, the sexual orientation addendum and the DHEQ-H-E. Factor analysis was completed with these four additional scales and are reported in Table 13

Table 13

Factor Analysis of the DHEQ-H-Expanded

	Educating providers	Sexual Orientation	Microinvalidations & Insults	Microassaults
Experienced a microinvalidation by a healthcare provider. Microinvalidations are communications that exclude, negate, or nullify thoughts/feelings/experiences, e.g., being misgendered.	.545			

Having to educate healthcare providers about your LGBTQ+ identity & healthcare needs	.826				
Feeling a responsibility to educate healthcare providers on LGBTQ+ issues	.850				
Feeling a burden to educate healthcare providers because you are LGBTQ+	.901				
Feeling invisible in healthcare settings due to your sexual orientation		.755			
Being harassed in healthcare settings because of your sexual orientation		.566			
Feeling like you are not welcome in healthcare settings because of your sexual orientation		.799			
Feeling uncomfortable when wearing your preferred clothing when accessing healthcare because of your sexual orientation		.625			
Being misunderstood by providers because of your sexual orientation		.649			
Experienced a microinvalidation by someone other than healthcare provider while accessing healthcare. Microinvalidations are communications that exclude, negate, or nullify thoughts/feelings/experiences, e.g., being misgendered.			.851		
Experienced a microinsult by someone other than a healthcare provider while accessing healthcare. A microinsult is defined as a rude/insensitive comment that serves to demean a person, e.g., “Trans people are mentally ill."			.662		
Experienced a microassault by a healthcare provider. A microassault is defined as an explicit verbal or nonverbal attack meant to hurt the victim, e.g., being called a "fag" or "dyke."				.847	

Experienced a microassault by someone other than a healthcare provider while accessing healthcare. A microassault is defined as an explicit verbal or nonverbal attack meant to hurt the victim, e.g., being called a "fag" or "dyke."				.610

The items which were hypothesized as the components of these additional scales largely mapped onto each scale as expected. One item involving microinvalidations loaded onto a factor related to educating providers. The five items directly pertaining to sexual orientation all loaded onto the same factor. As mentioned above, items pertaining to microaggressions were divided into the three subcategories of microinvalidations, microinsults, and microassaults. The items for the former two subcategories (microinvalidations and microinsults) loaded onto the same factor, likely due to these experiences being relatively close in nature in that they are not directly aimed at causing harm. Items related to microassaults loaded onto an independent factor, likely due to their nature as more explicitly aimed at causing harm (e.g., being called “fag” or “dyke” as opposed to being misgendered).

Two items did not load onto any of these factors and are reported in Table 14. The first related to experiencing a microinsult such as calling a Trans person mentally ill, which likely did not load onto a factor due to this being an infrequently reported experience in the current sample. The final item which did not load involved the partners of LGBTQ+ people being treated differently or unfairly by healthcare providers. This was also the only item related to the families of LGBTQ+ people. This standalone item thus did not load onto any other factor, as no questions related to this topic.

Table 14

Items dropped from DHEQ-H-Expanded after conducting factor analysis

Dropped Items
Experienced a microinsult by a healthcare provider. A microinsult is defined as a rude/insensitive comment that serves to demean a person, e.g., "Trans people are mentally ill."
Thinking about your romantic relationships, how much do you feel you and your partner(s) are treated differently by healthcare providers because of your LGBTQ+ identity?

Occurrences, DHEQ-H

As mentioned, the DHEQ can be scored to reflect both the occurrences of experiences, as well as the reported distress of those experiences. The occurrences of each experience are reported in this section. Responses were recoded such that 0=0 (did not occur) and 1-5=1, indicating that this experience occurred (irrespective of the level of associated stress). Table 15 reports the occurrences of each item of the DHEQ-H

Table 15

Occurrences of experiences listed on DHEQ-H in current sample

Item	Yes (*n*)	Yes (%)
Hearing about LGBTQ+ people you don't know being treated unfairly by healthcare providers	144	91.1
Hearing about LGBTQ+ people who you know being treated unfairly by a healthcare provider	117	74.1
Difficulty finding a healthcare provider who is LGBTQ+	114	72.2
Having very few healthcare providers you can talk to about being LGBTQ+	112	70.9
Hiding part of your life from your healthcare provider	108	68.4

Watching what you say and do when around healthcare providers who you perceive to be heterosexual	106	67.1
Hiding your LGBTQ+ identity from healthcare providers	90	57.0
Avoiding talking about your current or past relationships when you are accessing healthcare	79	50
Difficulty finding a healthcare provider because you are LGBTQ+	78	49.4
Feeling invisible in healthcare settings due to your gender expression	61	38.6
Pretending that you are cisgender when with healthcare providers	58	36.7
Being misunderstood by providers because of your gender expression	57	36.1
Hearing people (healthcare providers, other staff, other patients, etc.) say negative things/make jokes about LGBTQ+ people in a healthcare setting	57	36.1
Pretending that you are heterosexual and/or have an opposite sex partner when with healthcare providers	55	34.8
Hearing other people being called names such as "fag" or "dyke" in a healthcare setting	48	30.4
Feeling like you are not welcome in healthcare settings because of your gender expression	46	29.1
People staring at you in a healthcare setting because you are LGBTQ+	45	28.5
Feeling uncomfortable when wearing your preferred clothing because of your gender expression when accessing healthcare	42	26.6
Being treated unfairly in healthcare settings because you are LGBTQ+	33	20.9
Being verbally harassed in healthcare settings by people you know (e.g., providers, family, friends, acquaintances) because you are LGBTQ+	17	10.8
Being verbally harassed by strangers in healthcare settings because you are LGBTQ+	16	10.1
People laughing at you or making jokes at your expense in healthcare settings because you are LGBTQ+	15	9.5
Being harassed in healthcare settings because of your gender expression	14	8.9
Been inappropriately touched by a healthcare provider because you are LGBTQ+	5	3.2

Being called names such as “fag” or “dyke” in healthcare settings	4	2.5
Being raped or sexually assaulted by a healthcare provider because you are LGBTQ+	3	1.9

The experiences with the most frequent occurrences in the current study included hearing about LGBTQ+ people participants don’t know as well as people participants do know being treated unfairly by healthcare providers (91.1% and 74.1%, respectively). Additionally, there were a high frequency of experiences related to having a difficulty finding a healthcare provider who is LGBTQ+ (72.2%) and having few providers you can talk to about being LGBTQ+ (70.9%).

There were some experiences that were endorsed by only a handful of participants. These include being sexually assaulted by healthcare providers (1.9%), being inappropriately touched by healthcare providers (3.2%), and being called names such as “fag” or “dyke” (2.5%).

Frequencies, additional measures

The frequency of the occurrences of the sexual orientation addendum and the DHEQ-H-E are reported in Table 16. Of these additional items, the most frequently endorsed experiences related to feeling a responsibility to educate providers about LGBTQ+ issues (63.3%), having to educate providers about their own LGBTQ+ identity and related healthcare needs (61.4%), and feeling a burden to have to educate healthcare providers because of their LGBTQ+ identity (60.8%).

Experiences related to being harassed in healthcare settings due to sexual orientation occurred relatively infrequently (6.3%), as did the experiences of microassaults (7.0%).

Table 16

Occurrences of experiences listed on DHEQ-H-Expanded in current sample

Item	Yes (*n*)	Yes (%)
Experienced a microinvalidation by a healthcare provider. Microinvalidations are communications that exclude, negate, or nullify thoughts/feelings/experiences, e.g., being misgendered.	79	50.0
Having to educate healthcare providers about your LGBTQ+ identity & healthcare needs	97	61.4
Feeling a responsibility to educate healthcare providers on LGBTQ+ issues	100	63.3
Feeling a burden to educate healthcare providers because you are LGBTQ+	96	60.8
Feeling invisible in healthcare settings due to your sexual orientation	83	52.5
Being harassed in healthcare settings because of your sexual orientation	10	6.3
Feeling like you are not welcome in healthcare settings because of your sexual orientation	47	29.7
Feeling uncomfortable when wearing your preferred clothing when accessing healthcare because of your sexual orientation	27	17.1
Being misunderstood by providers because of your sexual orientation	85	53.8
Experienced a microinvalidation by someone other than healthcare provider while accessing healthcare. Microinvalidations are communications that exclude, negate, or nullify thoughts/feelings/experiences, e.g., being misgendered.	69	43.7
Experienced a microinsult by someone other than a healthcare provider while accessing healthcare. A microinsult is defined as a rude/insensitive comment that serves to demean a person, e.g., “Trans people are mentally ill."	40	25.3
Experienced a microassault by a healthcare provider. A microassault is defined as an explicit verbal or nonverbal attack meant to hurt the victim, e.g., being called a "fag" or "dyke."	11	7.0
Experienced a microassault by someone other than a healthcare provider while accessing healthcare. A microassault is defined as an explicit verbal or nonverbal attack meant to hurt the victim, e.g., being called a "fag" or "dyke."	24	15.2

Mean (Distress) & Standard Deviations

DHEQ-H

Means and standard deviations for each of the subscales on the DHEQ-H are reported in Table 17. These were computed by recoding 0 and 1 =1, while the other numbers of the Likert scale remained the same (ranging from 1: bothered me not at all to 5: bothered me extremely), and then finding the mean for each subscale. This aligns with the scoring instructions on the original DHEQ. To restate, the mean score of the subscales on the DHEQ-H indicate the average amount of distress endorsed by the current sample.

Table 17

Means & Standard Deviations of the DHEQ-H and Subscales

Subscale	Range	Mean	Std. Deviation
Gender Expression	1-5	1.87	1.08
Vigilance	1-5	2.32	1.04
Victimization	1-5	1.07	.449
Harassment	1-5	1.23	.622
Vicarious Trauma	1-5	3.03	1.17
DHEQ-H (Total)	1-5	1.98	.702

Reported distress of experiences related to vicarious trauma were the most elevated (3.03), indicating an overall moderate level of distress per the response categories of the DHEQ ("bothered me moderately"). Stress relating to vigilance fell was also elevated (2.32), which corresponds to "a little bit" of reported stress on the DHEQ-H.

Means & Standard Deviations, Addendum & DHEQ-H-E

The distress of the additional scales developed based off of the qualitative interviews were also computed. These are reported in Table 18. Distress relating to having to educate providers was the most elevated (2.41), indicating that participants are experiencing a moderate amount of stress related to these experiences.

Table 18
Means & Standard Deviations of the DHEQ-H-Expanded

Subscale	Range	Mean	Std. Deviation
Sexual Orientation	1-5	1.65	.789
Educating	1-5	2.41	1.31
Microinvalidations	1-5	1.94	1.21
Microassaults	1-5	1.28	.724

Means & Standard Deviations of Additional Measures

Additional measures of mental and physical health were included in the distribution of the DHEQ-H. On a measure of general stress (the Perceived Stress Scale, or PSS), this sample scored in the moderate range (20.0/40). On a measure of trauma symptoms (the PTSD Checklist, Civilians, or PLC-C), this sample averaged a moderate amount (45.2/85). This sample fell into the category of "median resilient copers" (14.1/20) as indicated on the included measure of this construct, the Brief Resilient Coping Scale.

On a measure of physical functioning (SF-36), there are 8 subscales measuring the following: physical functioning, role limitations due to physical health, role limitations due to emotional problems, energy/fatigues, emotional well-being, social functioning, pain, and general health. In the current sample, participants averaged an 82/100 for physical functioning, which is slightly healthier than the average of physical functioning (70/100) from the SF-36 development study (n=2471) by Steward, Sherbourne, and Hayes (1992). Notably, the current sample's reported perception of their general health was 50/100, in contrast to 56/100 for the general population identified by Steward, Sherbourne, and Hayes (1992). Pain (63/100) was also reported as worse than the general population (70/100) as identified by Steward, Sherbourne, and Hayes (1992).

Table 19

Means & Standard Deviations of Additional Measures

Measure	Range	Mean	Std. Deviation	N
Stress	0 - 40 (40= high stress)	20.0	6.30	145
PTSD Sx	0 - 85 (85= high trauma sx)	45.25	15.75	141
Coping	0 - 20 (20=high resilient coping)	14.18	2.62	140
Physical Functioning	0 - 100 (100=better health)	82.02	23.6	148
Role Fx/Physical	" "	61.17	41.2	47
Role Fx/Emotional	" "	63.24	42.6	90
Social Functioning	" "	54.61	26.8	148
Pain	" "	63.51	27.8	148
General health	" "	50.33	25.3	148

Correlations

Validity was assessed using correlational analyses between the DHEQ-H and the additional measures included.

Correlations

Correlations between the mean scores of the DHEQ-H and included subscales and measures of stress, trauma, and coping are reported in Table 20. Moderate positive correlations were found between a measure of stress and the subscales of gender expression (*r*=.321**, p=.000), vigilance (*r*=.321**, p=.000), and the overall DHEQ-H (*r*=.373**, p=.000). A weaker correlation was identified with the subscale of vicarious trauma (*r*=.248**, p=.003). Moderate/strong correlations were identified between a measure of trauma and all subscales on the DHEQ-H, including the overall DHEQ-H (*r*=.516**, p=.000). These correlations give evidence of construct validity, specifically convergent validity.

Correlations between the overall DHEQ-H, the DHEQ-H subscales, and each subscale of the SF-36 were also analyzed. To restate, higher scores on the subscales of the SF-36

indicate higher levels of health, while higher scores on the DHEQ-H subscales indicate higher levels of stress. It is unsurprising that nearly all scores of each SF-36 subscale were negatively correlated with higher scores of the DHEQ-H subscales, as this aligns with minority stress theory which posits that higher levels of stress have an adverse effect on overall health. Indeed, when correlating the overall distress as measured by the DHEQ-H, there were moderate negative correlations on the subscales related to physical functioning (*r*=-.348**, p=.000), energy (*r*=-.362**, p=.000), emotional functioning (*r*=-.403**, p=.000), social functioning (*r*=-.449**, p=.000), and pain (*r*=-.507**, p=.000). These correlations give further evidence of construct validity. There were no significant correlations between the measure of coping and the DHEQ-H. As coping is a construct that is distinct from stress, it is unsurprising that these two constructs would not have a significant association. Additionally, the coping measure included was quite brief given that coping was not a central focus of the current study, and therefore there may have been insufficient data regarding coping to be significantly correlated with any of aspect of the DHEQ-H.

Table 20

Correlations of the DHEQ-H and Subscales and Additional Measures

	Gender Expression Distress	**Vigilance Distress**	**Victimization Distress**	**Isolation Distress**	**Vicarious Trauma Distress**	**Overall DHEQ-H Distress**
Stress	.321**	.321**	.101	.142	.248**	.373**
Trauma	.439**	.399**	.197*	.288**	.377**	.516**

Coping	-.094	-.113	-.084	-.090	-.038	-.125
Physical functioning	-.395**	-.161	-.255**	-.284**	-.151	-.348**
Physical (role fx)	-.072	.174	.097	-.066	-.248	-.041
Emotional (role fx)	-.173	.053	-.004	-.118	-.177	-.124
Energy	-.337**	-.314**	-.068	-.168*	-.191*	-.362**
Emotional fx	-.331**	-.363**	-.124	-.132	-.293**	-.403**
Social fx	-.372**	-.341**	-.209*	-.272**	-.321**	-.449**
Pain	-.509*	-.329*	-.219*	-.288*	-.300*	-.507**
General	-.372**	-.253**	-.203*	-.269**	-.267**	-.399**

* $p \leq .05$.
** $p \leq .01$.
*** $p \leq .001$.

Correlations; Additional Scales and Additional Measures

Correlations were computed between the additional scales developed and the additional measures included and are reported in Table 21. These correlations were designed to assess construct validity, specifically convergent validity. Stress related to

educating providers and sexual orientation were moderately positively correlated with the included measure of overall distress (*r*=.344**, p=.000 and *r*=.328**, p=.000, respectively). Additionally, all developed scales and a measure of trauma symptoms were significantly correlated. A measure of adaptive coping was not significantly associated with distress relating to the additional scales developed.

Stress relating to educating providers and microinvalidations were moderately negatively correlated with higher physical functioning (*r*=-.402**, p=.000, *r*=-.315**, p=.000), respectively. Microassaults were weakly correlated with higher physical functioning (*r*=-.255**, p=.000). This again indicates that stressful interactions with providers is moderately correlated with poorer overall physical functioning in the current sample. Similarly, emotional functioning was moderately negatively correlated with stress related to educating providers and sexual orientation (*r*=-.329**, p=-.000 and *r*=-.309**, p=.000, respectively).

Table 21

Correlations of the DHEQ-H-Expanded and additional measures

	Educating Providers	Sexual Orientation	Micro invalidations	Micro assaults
Stress	.344**	.328**	.160	.135
Trauma	.465**	.351**	.208*	.187*
Coping	-.080	-.126	.101	.019
Physical functioning	-.402**	-.152	-.315**	-.255**
Physical-role	-.162	.048	-.228	-.321*
Emotional role	-.134	.169	-.178	-.146
Energy	-.385**	-.254**	-.180*	-.066

Emotional fx	-.329**	-.309**	-.157	-.137
Social functioning	-.452**	-.311**	-.275**	-.200*
Pain	-.550*	.-338*	-.341*	-.196*
General	-.465**	-.224**	-.263**	-.090

*
p ≤ .05.
**
p ≤.01.
***
p ≤.001.

Multiple Regressions

Multiple linear regression analyses were run to establish predictive validity and explore the relationship between a number of dependent variables (PSS, PCL, BRCS, and several SF-36 subscales) and the individual subscales of the DHEQ-H. These are reported Table 22.

Table 22

Multiple Regressions establishing predictive validity for the DHEQ-H

	PSS R2 Change	PCL, R2 Change	BRCS	SF 36 (emotional fx)	SF 36 (physical fx)	SF 36 (general)
Gender	10.3% ***	19.2% ***	.9%	11% ***	15.6% ***	13.8% ***
Vigilance	2.7% *	3.1% ***	.9%	4.3% ***	.8%	.2%
Victimization	0%	.7%	.4%	.2%	1.9%	1%
Harassment	.2%	1.7%	.3%	.1%	.9%	1.4%
Vicarious Trauma	.8%	2.5%*	.1%	1.5%	0%	1%
Educating Providers	1%	1.7%	0%	.2%	4.0% *	6.5% ***
Sexual Orientation	1.3%	.1%	.3%	.5%	.2%	.1%
Micro invalidations	.8%	2.7% *	4.9%	.9%	.9%	0%

Micro assaults	.1%	0%	.1%	0%	1.3%	.8%

*
p ≤ .05.
**
p ≤.01.
***
p ≤.001.

Two of the subscales of the DHEQ-H (Gender and Vigilance) were significantly related to Perceived Stress Scale. The subscales of the DHEQ-H that accounted for the largest amount of variance in the PSS scores was gender-related stress (10.3%), indicating that 10.3% of the total stress reported by the current sample was accounted for by gender-related stress.

The Gender and Vigilance subscales of the DHEQ-H were also significantly related to the PCL, as was the additional Microinvalidations subscale. As with the PSS, stress related to gender identity accounted for the largest variance on this measure of PTSD symptoms (19.2%). In other words, almost 20% of the reported trauma symptoms in the current sample was accounted for by stress related to gender-related concerns. There were no significant relationships between the BRCS and the subscales of the DHEQ-H.

The regression analysis indicated that the SF-36 subscales related to emotional functioning, physical functioning, and general perceptions of health, were most significantly associated with the Gender subscale. Once again, stress related to gender accounted for the highest amount of variance in all three subscales on the SF-36 (11%, 15.6%, and 13.8%, respectively). There was also a significant relationship between the subscale for Educating Providers and the SF-36 physical functioning and general health perceptions subscale as well.

Taken together, results from this analysis clearly suggest that a notable portion of the stress, trauma symptoms, emotional functioning, physical functioning, and health perceptions reported by the current sample are accounted for by stressful experiences related to gender identity. This indicates that, particularly for the subscale related to gender identity, the DHEQ-H demonstrates predictive validity as it relates to the overall stress experienced by gender minorities in the current sample.

Results of the multiple regression analysis did not indicate many additional significant associations aside from the aforementioned domains. There are multiple reasons why this may be the case. For instance, the model was large and sample size was relatively small and it is possible that a more parsimonious model could have indicated more significant findings. It is also possible that there are truly no significant relationships between these variables. Future analyses of this data set could help to further clarify the significance of the relationships between these variables .

Chapter 5: Discussion

The current study aimed to develop a reliable and valid measure of LGBTQ+ people's healthcare experiences given the lack of such questionnaires. Towards this end, this research project sought to adapt the Daily Heterosexist Experiences Questionnaire for use in healthcare settings to better understand the healthcare experiences of LGBTQ+ people, which could provide insight in how best to address health disparities found in this community. The specific aims of the current study are restated, and findings are discussed in the following section.

Specific Aim #1 – Specific aim 1 involved identifying themes and developing items pertaining to experiences of heterosexism by LGBTQ+ people in healthcare settings. It was

hypothesized that many of these developed themes and items would overlap with those identified in the DHEQ development study.

Upon completion of thematic analysis on the qualitative interviews, the majority of the original subthemes were retained as expected. For instance, experiences of vigilance on the DHEQ ("Watching what you say and do around heterosexual people") closely translated to similar experiences in healthcare settings ("Watching what you say and do when around providers you perceive to be heterosexual"). Put another way, many of the minority stress experiences identified by Balsam et. al (2013) were similar to the experiences of LGBTQ+ people in healthcare settings based off the qualitative interviews conducted.

Not all themes translated to healthcare settings as expected. For instance, the themes of parenting, HIV/AIDS, and family of origin were removed as they were not discussed by qualitative study participants. While information regarding children was not collected in our demographic information in the qualitative portion of the study, it is possible that a majority of our sample did not have children. Similarly, HIV/AIDS information was not collected in the qualitative portion, and it is possible that the majority of these participants did not struggle with this health concern. It is also possible given the enduring stigma related to a HIV diagnosis that participants did not feel comfortable endorsing this concern in the current interviews. Participants also did not endorse concerns related to their family of origin as it relates to their healthcare experiences, and thus this was also removed from the current study.

It was not hypothesized that there would be additional themes in the DHEQ-H that were not identified by Balsam et al (2013). However, the additional themes of sexual orientation, experiences of microaggressions, educating providers, and a one-item question

related to romantic relationships were identified. The additional theme of questions relating specifically to sexual orientation was identified given that sexual minorities were a large portion of the current sample. Additionally, this scale was developed in order to differentiate the experiences of sexual minorities from those of gender minorities, which is captured in the gender expression subtheme in the DHEQ-H.

While similar to some of the themes on the original DHEQ (e.g., harassment and discrimination), many participants specifically identified microaggressions as common experiences when in healthcare settings, thus necessitating an additional scale with this information. The qualitative study revealed that many participants struggled with a unique stressor of having to educate providers on their sexual and/or gender identity and relevant healthcare concerns. This was not a topic originally identified on the DHEQ, most likely due to the unique nature of the interactions which occur with professionals in healthcare settings as opposed to more general settings. While participants did not discuss family of origin concerns related to healthcare settings, they did mention concerns related to their romantic relationships (e.g., feeling like their romantic partners were treated differently by healthcare providers). Thus, an additional 1-item question was added to capture this experience.

Specific Aim #2 - Specific aim #2 involved adapting the DHEQ based on the data gathered from the qualitative interviews. There were no associated hypotheses, and this aim was completed once themes from the qualitative interviews were analyzed using thematic analysis, as explored above.

Specific Aim #3 – The third and final aim of the current study was to assess the psychometric properties of the DHEQ-H. It was hypothesized that the 9-factor solution

which was identified by Balsam et. al (2013) would be relevant to LGBTQ+ people's healthcare experiences. It was also hypothesized that there would be a positive correlation between total scores on the DHEQ-H and higher rates of reported physical and mental health issues as measured by additional questionnaires, and negative correlations between the DHEQ-H and a measure of resilient coping.

In contrast to the DHEQ's 9-factor solution, it was found that a 5-factor solution best fit our current data after completing a thematic analysis in the qualitative interviews and running a factor analysis of the quantitative data. The identified factors led to the development of five DHEQ-H subscales: Gender Expression, Vigilance, Victimization, Harassment, and Vicarious Trauma.

Results of the current study indicate that the DHEQ-H is a reliable and valid measure of LGBTQ+ people's minority stress experiences in healthcare settings. The overall reliability for the DHEQ-H was good (.908), as with the reliability for each DHEQ-H subscale. As hypothesized, there was a significant positive correlation between overall stress as measured by the DHEQ-H and a measure of general stress, as well as a significant positive correlation between total DHEQ-H scores and a measure of trauma. Taken together, these findings indicate that the DHEQ-H is a valid measure of minority stress.

Occurrences of Heterosexist Events

The current study confirmed findings in a number of previous studies on this topic that LGBTQ+ people are facing instances of minority stress in healthcare settings with varying degrees of frequency (Albuquerque et al, 2016; Sherman, 2014; Stein and Bonuck, 2001). The most frequently endorsed experience was related to participants hearing about LGBTQ+ people who they *did not know* being treated unfairly by healthcare providers

(91.1%). In other words, the overwhelming majority of the 158 individuals who answered this question had the experience of hearing about other LGBTQ+ people being treated unfairly by healthcare providers. Additionally, 74.1% of the sample endorsed hearing about LGBTQ+ people they *do* know being treated unfairly by healthcare providers. This suggests that LGBTQ+ people are very aware that members of their community contend with minority stress experiences in healthcare settings.

While it is not possible to know the nature of the experiences that LGBTQ+ people are hearing about based off the current data, this finding may suggest that LGBTQ+ have the *perception* that healthcare settings are not always conducive to the health and wellness of the LGBTQ+ community. This finding also likely suggests a factor which contributes to a general sense of lack of safety in healthcare settings, which could be related to a lack of trust in the healthcare system overall. What's more, it is possible that LGBTQ+ community members are commonly sharing about their healthcare experiences with other community members in order to increase a sense of safety (e.g., warning not to go to a certain healthcare provider or system due to lack of cultural awareness). This aligns with other literature on the topic, such as the work of Sherman (2014a) and Ruben et al. (2017). This is also consistent with minority stress theory in general. As indicated in the minority stress pathway in Figure 3, the experience of hearing about people being treated unfairly could have the downstream effect of LGBTQ+ people not engaging with their own healthcare due to these perceptions of a lack of safety.

It is worth noting that two other areas that were frequently endorsed by participants included having difficulty finding a healthcare provider who is LGBTQ+ (72.2%) and having few providers who participants feel they can talk to about being

LGBTQ+ (70.9%). Taken together, these findings suggest that the majority of LGBTQ+ people have difficulty finding an LGBTQ+ community member as a provider, and also have difficulty finding providers with whom they feel comfortable talking about their LGBTQ+ identity.

The finding related to few LGBTQ+ providers is unsurprising given the proportion of LGBTQ+ community members relative to the general public, though it may also reflect a larger systemic concern wherein LGBTQ+ members are underrepresented in healthcare fields. While there is a paucity of literature on the topic, one study which surveyed a sample of 4732 first-year medical students in the US in 2010 found that 94.5% of the sample identified as heterosexual, indeed suggesting that overwhelming majority of the healthcare field are non-LGB. There is very little literature on the presence of trans-identified providers, but this data suggests that there is likely a very limited number of transgender-identified providers in the US. Of note, it is likely that there are a number of factors that such a small minority of providers identify as LGBTQ+. For instance, many providers may fear outing themselves in a workplace in general or with patients they work with (Ragins BR, Singh R, Cronwell JM, 2007). This limited number of LGBTQ+ providers which is further restricted by the number of factors which may keep LGBTQ+ providers from outing themselves in workplaces settings may serve to further alienate LGBTQ+ patients in general.

The fact that 70.9% of the current sample feels generally unable to talk about being LGBTQ+ with providers may also suggest that overall, participants perceive healthcare providers to not possess the adequate knowledge of their needs as LGBTQ+ people. This may reflect a wider failing on the part of the healthcare system generally, which may not

provide enough training to providers on working with LGBTQ+ community members. This aligns with the vast majority of literature on the topic (e.g., Krehely, 2009; Ruben et al., 2017) and will be explored further in the following implications section.

In adapting this measure of minority stress into healthcare settings, our findings shed light on the specific kinds of experiences that LGBTQ+ people struggle with when interacting with healthcare professionals. Nearly 70% of the sample indicated that they hide part of their life from their healthcare providers. Similarly, 57% noted that they actively hide their LGBTQ+ identity from their healthcare provider. Additionally, half of the sample indicated that they avoid talking about past or present romantic relationships. These findings again suggest that LGTBQ+ people are actively altering their interactions with healthcare providers due to their LGBTQ+ identity.

It is important to emphasize that *all* experiences of minority stress, regardless of their frequency, can put undue stress on LGBTQ+ community members and have an adverse impact on their health and well-being (Mathieson, 1998; Sherman, 2014a). Thus, even the least frequent experiences reported in the current study can have a negative impact on LGBTQ+ people. While still unacceptably high, the least frequent experiences endorsed in the current sample included being raped or sexually assaulted by a healthcare provider because they are LGBTQ+ (1.9%), being called names such as “fag” or “dyke” (2.5%) and being inappropriately touched by a healthcare provider because they are LGBTQ+ (3.2%). This could reflect a more general trend wherein heterosexist, transphobic, and homophobic actions are less overt (e.g., physical assault), and are rather more covert (e.g., participants feeling they need to watch what they say/do when around providers they perceive to be heterosexual, endorsed by 67.1% of the current sample).

Other areas were endorsed with relatively lower frequency, such as feeling invisible in healthcare settings due to gender expression (38.6%) or feeling unwelcome in healthcare settings because of gender expression (29.1%). However, these findings should be interpreted with caution. It is important to note that gender minority participants made up approximately 44% of the current sample. Therefore, these items were only directly relevant to less than half of the sample. In other words, it is possible that the majority of those who are gender minorities have experienced feeling invisible or feeling unwelcomed due to their gender expression. Future analyses of the current data set could provide more clarity as to this possibility.

Many occurrences of minority stress were endorsed relating to the additional scales developed relating to microaggressions, sexual orientation, and educating providers. The most frequent of these related to having to educate providers regarding LGBTQ+ identity and healthcare needs and feeling a sense of responsibility and/or a burden to do so. This finding is not surprising, given that LGBTQ+ people in this sample endorsed difficulty finding providers who either identify as LGBTQ+ or they perceive to be competent when working with LGBTQ+ people. Thus, the current data seems to suggest that the burden of educating providers on LGBTQ+ patient's concerns appear to fall on LGBTQ+ people themselves, which the majority of this sample reports feeling a sense of responsibility and a burden to do so. This is in line with the literature on the topic, such as the study conducted by Sherman (2014a), which found that only 14% of their sample of LGB patients had had their provider initiate discussions about sexual orientation.

Finally, in line with the low rates of overt hostility, the additional microaggression scale indicates that a small proportion of LGBTQ+ participants have experienced

microassaults by a healthcare provider (7%) or being harassed due to sexual orientation (6.3%). This is similar to the findings of Ruben et. al (2017), whose sample of lesbian women veterans indicated that 10% had experienced harassment from providers due to their sexual orientation. While the current sample endorsed overt experiences of hostility at a relatively lower rate, almost half of the sample endorsed experiencing microinvalidations, and a quarter endorsed microinsults. Similarly, studies such as those conducted by Sherman (2014a) found that 72-80% of their sample had experienced some kind of discrimination (including events that could be considered microinvalidations and/or microinsults) from providers due to their sexual orientation.

Reported Distress

Mental Health of Current Sample

Participants of the qualitative portion of the current study endorsed high rates of depression symptoms (82% in the past year) as well as anxiety symptoms (84% in last year). On separate measures of perceived stress and PTSD symptoms, participants scored on average in the moderate range. These findings suggest that, irrespective of experiences directly related to minority stress, the current sample is experiencing relatively high rates of mental health concerns. To restate, not all symptoms endorsed are necessarily linked to the LGBTQ+ identity of participants. For instance, there may be participants with other identity factors (e.g., Veteran status, which was not assessed in the current study) that may impact the overall scores of PTSD symptoms found in the current study. In the following

section, the experiences of minority stress that could be contributing to these high rates of mental health concerns are explored.

DHEQ-H, Distress

Minority stress is a leading theory which can help contextualize the higher rates of mental and physical health ailments in the LGBTQ+ community. On the DHEQ-H, the sample scored in the mild-moderate range (1.98/5, sd=.702, with 5 indicating high distress). Put simply, the current sample is experiencing moderate stress both in general, as well as in healthcare settings.

As mentioned, the moderate rates of general stress could be capturing a variety of stressors which are not necessarily linked to their gender or sexual minority status. As the minority stress model emphasizes, there are general "normative" stressors experienced by all people, which is of course the case with the current sample (Meyer, 2003). Additionally, the intersectional perspective is an invaluable framework for understanding how other minority identities may be impacting someone's overall experience (Parent, DeBlaere, Moradi, 2013). While differences in experiences of minority stress were not broken down and analyzed between different racial/ethnic minority subgroups, it is nonetheless quite likely that different racial/ethnic minority groups may have differing degrees of stressful experiences in general, and in healthcare settings.

Regarding the specific stressful experiences as measured by the DHEQ-H, the subscales with the highest elevations included experiences of Vicarious Trauma and Vigilance. Elevations on the Vicarious Trauma subscale suggest that the current sample experienced significant stress upon hearing about LGBTQ+ people being treated unfairly, being made fun of, or being called offensive names. Of note, this was also the area that was

most frequently experienced by the current sample. Taken together, this suggests that LGBTQ+ people are frequently hearing about stressful experiences of other LGBTQ+ people, which is also causing moderately high rates of distress. The elevations on these subscales are in line with those indicated by Meyers (1995), which indicated that vicarious trauma and vigilance in terms of expectations of rejection to be key aspects of minority stress.

The elevations on the Vigilance subscale indicate that the current sample experienced distress when encountering situations wherein they needed to hide their identity, avoid talking about their relationships, pretending to be heterosexual, and other experiences related to being vigilant in healthcare settings. These elevations suggest that healthcare settings can be unfriendly and at times hostile settings for LGBTQ+ people, which causes significant stress. This is in line with nearly all literature pertaining to this subject (e.g., Meyer, 2004; Sherman et al, 2014, Sherman et al, 2014a).

Additional Scales, Distress

The qualitative interview portion of the current study suggested the need for additional scales beyond those in the DHEQ-H, leading to the sexual orientation addendum and the DHEQ-H-E. Of these additional scales on the DHEQ-H-E, there most highly elevated was the Educating Providers scales (2.41/5), followed by the Microinvalidations scale (1.94). Elevations on the former scale indicate that LGBTQ+ people are experiencing moderate distress in facing situations wherein they need to provide some kind of education regarding their LGBTQ+ identity to providers, feeling a responsibility to do so, and/or feeling burdened by doing so. Additionally, the current sample indicated some distress related to experiences of microinvalidations such as being misgendered, as well as

microinsults such as experiencing mean/insensitive comments serving to demean a person.

Correlations, Minority Stress & Emotional/Physical Functioning

Our data suggests that certain minority stress as measured by the DHEQ-H is correlated with worse emotional and physical functioning as indicated by the additional measures including, which is one means by which validity was established for the DHEQ-H.

This correlation is directly in line with minority stress theory, which posits that minority stressors have an adverse impact on LGBTQ+ people's physical and mental health outcomes. Our findings help to shed light on which specific experiences are most strongly correlated with worse health outcomes. The most strongly correlated experiences with worse health outcomes involved gender-related minority stress, stress related to feeling vigilant in healthcare settings, as well as stress related to vicarious trauma. These findings suggest that one pathway to reducing health disparities found in the LGBTQ+ community is by better understanding the healthcare needs of gender minorities, creating a space where LGBTQ+ people do not need to feel as vigilant in healthcare settings, as well as generally improving healthcare experiences for LGBTQ+ people in order to reduce experiences of vicarious trauma.

Many of the identified correlations in the current study are similar to those found in the original DHEQ development study by Balsam et. al (2013). For instance, PTSD symptoms as measured by the PCL-C were significantly correlated to the overall DHEQ-H (.516**) as well as the original DHEQ (.54***). The Perceived Stress Scale was also similarly correlated with the DHEQ-H (.373**) and the DHEQ (.33***). These similarities are unsurprising given that the DHEQ-H aims to assess similar minority stress experiences in a

more specific setting and provides further evidence for the DHEQ-H as a reliable measure of minority stress in healthcare settings. As Balsam et. al (2013) note, these moderate correlations clearly suggest that minority stress is an important aspect of the overall mental health of LGBTQ+ people.

Factor Analysis Discussion

The factor analysis conducted for this project was revealing in a number of ways. First, many items loaded onto the factor which was labeled "Gender Expression." One possible reason why a number of items have loaded onto this factor is due to the relatively high amount of gender-diverse participants in the current study. Many items in this factor directly pertain to experiences related to gender expression. Some, however, are more generally aimed at members of the LGBT community (e.g., "Being treated unfairly in healthcare settings because you are LGBTQ+"). These items are likely loading onto this factor of Gender Expression due to the frequency with which the relatively large sample of gender-diverse participants experience these incidences (e.g., being treated unfairly, people staring at you, difficulty finding a healthcare provider because you are LGBTQ+).

Notably, in the current study, many items that related to isolation on the original DHEQ also loaded onto the same factor as items related to vigilance. For instance, items such as having difficulty finding a healthcare provider who is LGBTQ+, were items that were adapted from the original DHEQ subscale of Isolation. It was determined that Vigilance was the more appropriate term for this broader category as it is possible that people are endorsing difficulty finding a healthcare provider who is LGBTQ+ so as to *not* have to experience vigilance related to their LGBTQ+ identity when accessing healthcare. In

this way, the items related to isolation can be seen as closely related to the overarching theme of Vigilance.

Questions related to targeted attacks on someone using derogatory slurs were determined to better fit into the Victimization category, as these experiences can have an emotional impact that is more similar to the experiences of being victimized (e.g., more similar to the experience of being assaulted or touched inappropriately), than it does to the experiences that comprise the factor of Harassment.

Of the 28 items which were originally retained, two did not load onto any of the aforementioned factors. These items pertained to the experience of being harassed in bathrooms due to gender expression in healthcare settings and feeling like you don't fit in with other LGBTQ+ people in healthcare settings. It is hypothesized that these experiences were relatively infrequent in the current sample, and thus they did not load onto any identified factors.

Multiple Regression Discussion

As mentioned, results from the multiple regression analysis suggest that a portion of the stress (10.3%) , trauma symptoms (19.2%), emotional functioning (11%), physical functioning (15.6%), and health perceptions (13.8%) reported by the current sample are accounted for by stressful experiences related to gender identity. This indicates that the DHEQ-H demonstrates predictive validity as it relates to the overall stress experienced by gender minorities in the current sample. It also generally suggests that the stress that gender minorities are facing in healthcare settings is having a significant impact on their overall health and wellbeing. As will be explored in the following section, providers and

healthcare systems in general should be sensitive to this fact and respond accordingly, especially when working with gender minorities.

While there is evidence of predictive validity with regards to gender-related stress, there was less evidence of predictive validity when considering the other DHEQ-H subscales. Vigilance was slightly predictive of overall stress (2.7%) and trauma (3.1) and overall emotional functioning (4.3%), indicating that these experiences of feeling vigilant in healthcare settings are having a slightly smaller though significant impact on LGBTQ+ people's well-being. Finally, the stress associated with educating providers was significantly predictive of general health perceptions (6.5%). While the nature of this association is unclear, it is possible that the stress of having to educate providers exacerbates patient's perception of their own health. We turn now to an exploration of some of the implications from the findings of the current study.

Implications

There are a number of implications relevant for healthcare systems, providers, training programs, and patients based off of these findings which are explored in the following section.

Implications for Healthcare Systems & Providers

Of note, this section should be understood as implications for *all* providers of healthcare services, not just those who are knowingly providing care to LGBTQ+ patients. Not only is this true as any provider could eventually find themselves working with an LGBTQ+ patient, but also our findings suggest that LGBTQ+ people are knowingly concealing their identity when in healthcare settings likely due to factors relating to

mistrust in the healthcare system. Previous literature on this subject suggests that this concealment of identity may subject LGBTQ+ people to more internal stressors (Balsam et al., 2013). These findings indicate that it would be best for all providers to operate with the following suggestions in mind when working with all of their patients.

The current findings suggest that LGBTQ+ people are experiencing a moderate amount of minority stress in healthcare settings for a variety of reasons, most notably experiences of vicarious trauma and vigilance. Providers should be aware that their LGBTQ+ patients are experiencing stress above and beyond what their heterosexual and/or cisgender peers may be experiencing in healthcare settings. What's more, the specific elevations on the Vicarious Trauma and Vigilance subscales indicate that many of the stressful experiences LGBTQ+ people face in healthcare settings are largely environmental (e.g., being wary of disclosing of your LGBTQ+ identity) as opposed to the result of some direct, firsthand experience (e.g., being called a "fag" or "dyke"). This could reflect the overall progress made by healthcare settings and the overall culture of the United States as it relates to the treatment of LGBTQ+ people (Ruben et al., 2017). However, it is clear that LGBTQ+ people are still encountering unwelcoming and more "passively" hostile healthcare environments.

Given the prevalence of vicarious trauma endorsed in the current sample, it is clear that members of the LGBTQ+ community are sharing with one another their negative experiences at healthcare settings. On one hand, this is clearly an adaptive strategy in that LGBTQ+ community members can share knowledge about certain healthcare systems and/or providers in order to increase safety. On the other hand, this pattern, if left unaddressed, only serves to further erode the trust between the LGBTQ+ community and

healthcare systems and providers. We turn now to an outline of some suggestions for rebuilding this trust between healthcare systems and providers and the LGBTQ+ patients they serve.

While some progress may have been made towards this end, the current findings indicate that it is not enough for healthcare settings to only work to eliminate explicit bias and discrimination towards LGBTQ+ people. What is needed is a more conscious, active effort at creating a welcoming and supporting environment for LGBTQ+ patients, such as the clinical cultural competence approach as put forth by Bidell & Whitman (2013). There are a variety of approaches towards this end which are indicated by the findings of the current study. The Fenway Guide to Lesbian, Gay, Bisexual, and Transgender Health (Makadon et. al, 2015) is an invaluable guide for healthcare settings and providers who aim to create a more LGBTQ+ affirming environment for their patients. For instance, they recommend implementing brochures, posters, and/or periodicals on LGBTQ+ topics in their waiting rooms and exam rooms which explicitly show support for the LGBTQ+ community. They also recommend including LGBTQ+ imagery in marketing materials, recognizing LGBTQ+ days of observance (e.g. Pride), and including sexual orientation/gender identity in nondiscrimination policies (Makadon et. al, 2015).

Makadon et. al (2015) also recommend identifying an LGBTQ+ "champion", or a staff member who is knowledgeable about serving the LGBTQ+ Community. For instance, the VA Healthcare System requires the staffing of an LGBTQ+ Care Coordinator position as an on-site consultation service for providers working with LGBTQ+ patients (Ruben et al., 2017). The ability for providers to indicate the correct name and/or pronouns for patients is another step towards creating a more welcoming environment (Makadon et. al, 2015).

These kinds of efforts serve to not only educate providers, but also provide visible displays of support for the LGBTQ+ community who are reporting a sense of mistrust in the healthcare system.

Regarding educating providers, it is clear that the burden of responsibility for working with LGBTQ+ patients should not fall on LGBTQ+ patients themselves given the stress this puts on LGBTQ+ patients. As aforementioned, efforts such as having an LGBTQ+ patient care coordinator could prove to be exceedingly beneficial. Online trainings and the use of outside consultants could also provide opportunities for additional training on this topic. Trainings could focus on a number of topics, including general psychoeducation on the unique healthcare experiences of LGBTQ+ patients. More specifically, providers could be better educated on how to avoid microaggressions when working with LGBTQ+ patients, as the current findings suggest that microaggressions are unfortunately causing distress among this patient population. In one study concerning the implication of LGBTQ+ related cultural competency skills training in a primary care setting, staff participated in two educational seminars (one 1-hour computer educational module and one 90-minute LGBTQ+ panel discussion), and staff participant post-test scores increased significantly ($p=.033$) and 72% indicated feeling more prepared to work with LGBTQ+ patients after completing such trainings (Felsenstein, 2018). Similar studies have indicated that workshops for medical students aimed at addressing microaggressions are effective at increasing student's abilities to both recognize and addressing microaggressions (Acholonu et. al, 2020). These kinds of workshops/interventions could be beneficial for increasing a sense of trust and safety and ultimately better health outcomes for LGBTQ+ identified patients.

Finally, gathering information about patient's LGBTQ+ identity can happen at many points along a patient's care continuum. Upon first entering a healthcare system, having questions explicitly asking about sexual identity and gender identity could provide basic information while also providing a space for patients to choose to disclose their identity (Makadon et. al, 2015). This can also be embedded in initial meetings with new providers, so as to reduce the burden of responsibility from disclosing one's sexual orientation or gender identity in a repeated manner. Finally, periodic updates (e.g., clinical reminders) to ask about gender identity/sexual orientation could be beneficial, as these identity variables are fluid and could change from those indicated in an initial assessment. These kinds of questions could overall serve to create an environment where sexual orientation and gender identity are more frequently brought up by those with more "power" in the patient/provider dynamic (e.g., the provider and/or the system they work within). Indeed, studies have indicated that most LGBTQ+ patients understand the importance of being asked about sexual orientation/gender identity, and would be willing to answer such questions (Cahill et. al, 2014). Overall, this can serve as an important step in building trust and safety for LGBTQ+ patients.

Implications for Healthcare Provider Training Programs

It is clear that our healthcare settings are failing our LGBTQ+ patients in that healthcare providers have a role in contributing to an environment that puts undue stress on this community. There is a need for both more explicitly welcoming and inclusive spaces for LGBTQ+ patients as well as providers who exhibit sensitivity and competence, as authors such as Ruben et. al (2017) have indicated. This likely reflects a deeper issue related to the training of providers. Indeed, in one study of medical school curricula, more

than 33% of medical schools reported 0 hours of LGBTQ-specific content delivered during the clinical years and ~7% reporting 0 hours of LGBTQ+ training in the preclinical years (Makadon et. al, 2015). This finding points towards a more systemic failing regarding provider education on LGBTQ+ care concerns which can impact the experiences of LGBTQ+ patients as explored in the current research.

Highlighting certain LGBTQ-related topics in training programs could prove especially helpful for the well-being of LGBTQ+ patients. Training programs for various healthcare professions would benefit from introducing key concepts such as minority stress, as well as a general overview of how minority stress experiences can impact physical and mental wellbeing, as well as how those experiences occur in healthcare settings. Hopefully, this shift in training will bring about a larger cultural shift which provides more explicitly welcoming environments for LGBTQ+ patients, which may overall have a positive impact on their health and wellbeing through reducing their minority stress experiences in healthcare settings.

As aforementioned, the Fenway Guide to Lesbian, Gay, Bisexual, and Transgender Health is a useful resource for providers working with LGBTQ+ populations (Makadon et. al, 2015). These authors note the importance of highlighting LGBTQ+ issues in health care education and point to national programs which work towards this end such as the National LGBT Health Education Center and the Joint Commission *Field Guide for Advancing Effective Communication, Cultural Competence, and Patient and Family-Centered Care for the LGBT Community* (Makadon et. al, 2015). These resources provide an excellent outline for healthcare professional training programs which seek to expand their curriculum related to working with LGBTQ+ patients.

Implications for LGBTQ+ Patients

As aforementioned, the burden of responsibility for improving healthcare experiences for LGBTQ+ people should not fall on LGBTQ+ patients themselves. Indeed, this responsibility is causing stress among this population, as demonstrated by the current findings. However, LGBTQ+ patients can equip themselves with the knowledge of the type of healthcare environment they are deserving of, including one that explicitly welcomes them and has providers who demonstrate competence when working with LGBTQ+ patients. LGBTQ+ patients may also choose to provide feedback to healthcare settings regarding the quality of their care or alter their care altogether.

Unfortunately, it is not always possible for LGBTQ+ patients to advocate for change if faced with an unwelcoming and harmful healthcare culture. What's more, it may be unrealistic for LGBTQ+ patients to seek out alternative care for a variety of reasons including limited care options, or financial limitations. It is for these reasons that the primary responsibility for creating more caring and helpful healthcare environments falls on the healthcare systems writ large, and healthcare providers themselves.

Coping was not found the be a significantly related to stress in the current sample. However, it is possible that adaptive coping skills can be a protective factor against the minority stress experiences faced by LGBTQ+ people in healthcare settings, which has been identified in Meyer's minority stress theory (2003). As such, providers working with LGBTQ+ patients could take a strengths-based approach, highlighting their use of adaptive coping in their daily lives as a way of lessening the impact of minority stress experiences generally. As many of the systemic challenges which harm LGBTQ+ patients are ongoing, it is an unfortunate necessity that LGBTQ+ patients continue to utilize adaptive coping

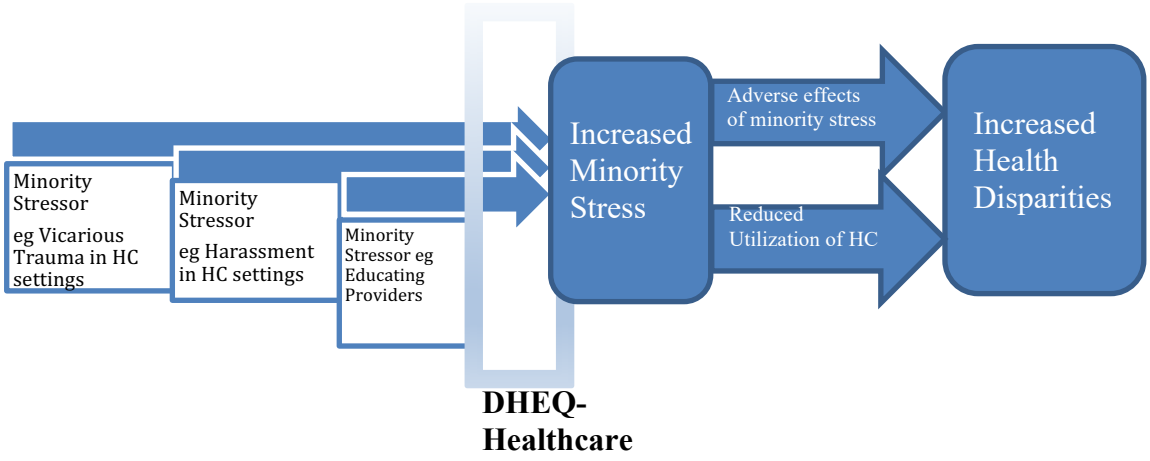
strategies, such as looking for creative ways to adapt to difficult situations, when faced with experiences of minority stress in healthcare settings.

Use of the DHEQ-H

As presented at the outset of this project, the following graphic presents the hypothesized role of the DHEQ-H as it relates to gathering information about the experiences of minority stress which LGBTQ+ face in healthcare settings in order to ultimately interrupt this process, reduce minority stress, and reduce health disparities in this population.

Figure 4

Overview of project aims including identified minority stressors



Results of the current study indicate that the DHEQ-H is a reliable and valid measure of LGBTQ+ people's minority stress experiences in healthcare settings. As outlined at the outset of this project, it could provide a useful tool for healthcare systems, providers, and patients as it relates to collecting information about these experiences. Ultimately, this information could help healthcare systems adapt practices (e.g., training providers, creating more LGBTQ+ affirmative spaces). This in turn can benefit LGBTQ+ patients,

whose healthcare experiences might be less stressful. Not only is reducing minority stress when in healthcare settings beneficial to LGBTQ+ patients in and of itself, but this reduction in stress could also likely translate to higher rates of healthcare utilization and adherence, which are known factors contributing to the health disparities found in this population.

Limitations

While there are a number of strengths to the current study, there are several limitations to note. First, this study aimed to look at the experience of people in healthcare settings based on identity variables related exclusively to gender and/or sexual orientation, thus excluding other important identity factors (e.g., SES, racial/ethnic identity) which likely impact patient's experiences with their providers. Future studies on this topic, or a future analysis of the current data, could explore how multiple minority identities might have an impact on patient's reported stress in healthcare settings.

Additionally, the current sample is not racially/ethnically diverse (~70% identifying as Caucasian). This may make findings relatively less generalizable to the general population or to other racial/ethnic groups. Additionally, a large portion of the current sample (~40%) are gender minorities. While this allows for a unique glimpse into the experiences of this subpopulation, it could be considered a limitation in terms of generalizability of experiences to the rest of the LGBTQ+ community given that our findings may be more in line with the experiences of people who are gender minorities rather than sexual minorities. Finally, the online distribution of the DHEQ-H was conducted via listservs and organizations across the country, though information on the geographic location of the study participants were not gathered. This makes it additionally challenging

to ascertain the generalizability of the current findings to the overall LGBTQ+ population in the United States.

Given that the research methods of the current study were largely inspired by the work of Balsam et al (2013), many of the limitations of their study are mirrored in the current study. For instance, as recruitment was largely focused on LGBTQ+ spaces, it is likely that our study participants were somewhat more connected to LGBTQ+ community in general and possibly more open about their sexual and/or gender identity than those who did not participate. Additionally, the DHEQ-H is based on responses that are retrospective and self-reported, and as such, answers may be impacted by factors such as recall accuracy and self-disclosure. While our study did include a measure of perceived stress, it did not include another measure of minority stress for comparison purposes.

Conclusions

The present study aimed to adapt the Daily Heterosexist Experiences Questionnaire, created by Balsam et al (2013), in order to create a valid and reliable measure of minority stress experiences faced by LGBTQ+ people in healthcare settings. Using a mixed-methods approach, this study created such a measure, the DHEQ-H. In doing so, important information was gathered about the specific experiences of minority stress (e.g., experiences of vicarious trauma) as well as the associated stress of those experiences.

As many authors on the topic have suggested, our healthcare system generally and healthcare providers themselves can contribute to an unwelcoming and even harmful environment for LGBTQ+ patients, which serves to exacerbate the preexisting health disparities in the LGBTQ+ community when compared to the general population. This negative impact stands in contrast to the intended benefit of our healthcare system, which

is to improve the health and well-being of all people. The DHEQ-H is the first tool of its kind that can be utilized by systems and providers to continue the perennial task of improving healthcare experiences and outcomes for the LGBTQ+ community.

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APPENDIX A

List of Terminology Related to LGBTQ+ Community

Terminology	**Definition**
Homosexual	Denoting or relating to a person who is sexually attracted to people of their own sex.
Lesbian	Denoting or relating to a person who identifies as a woman who is homosexual
Gay	Denoting or relating to a person who identifies as a man who is homosexual
Bisexual	Denoting or relating to a person who is sexually attracted not exclusively to people of one particular gender; attracted to both men and women.
Transgender	denoting or relating to a person whose sense of personal identity and gender does not correspond with their birth sex.

APPENDIX B

Qualitative Interview Guide

Intro:
Hello, and thank you for participating in this research project. Today I will be asking you about your experiences receiving healthcare. By healthcare, I mean any face-to-face interaction with someone providing a healthcare service (including but not limited to doctor's appointments or seeing mental health professionals).

I will ask you general questions about your healthcare experiences. I will also present you with a questionnaire about negative experiences commonly experienced by LGBTQ+ people, and ask some questions relating to that questionnaire.

Do you have any questions?

Are you ready to begin?

Healthcare questions:

1) What were some of the positive healthcare experiences you have had in the past year? What was positive about these experiences?
2) What were some of the negative healthcare experiences you have had in the past year? What was negative about these experiences?
    a) What did you do to manage these negative experiences? (disengage, social support, etc.)
3) Was your LGBTQ+ identity related to these experiences? If so, how?

DHEQ Questions:

1) Here is a list of negative experiences commonly reported by LGBTQ+ people. Which of these do you feel might be the same as, or similar to, experiences you have had with healthcare professionals?

Are there other healthcare related experiences related to your LGBTQ+ identity that you have not mentioned that you would like to?

Thank you for your participation in this study! If you are interested, here is a list of

resources.

APPENDIX C

Flyer for Study Recruitment

APPENDIX D

Daily Heterosexist Experiences Questionnaire (DHEQ)

The following is a list of experiences that LGBT people sometimes have. Please read each one carefully, and then respond to the following question:

How much has this problem distressed or bothered you during the past 12 months?

0= Did not happen/not applicable to me
1= It happened, and it bothered me NOT AT ALL
2= It happened, and it bothered me A LITTLE BIT
3= It happened, and it bothered me MODERATELY
4= It happened, and it bothered me QUITE A BIT
5= It happened, and it bothered me EXTREMELY

1. Difficulty finding a partner because you are LGBT
2. Difficulty finding LGBT friends
3. Having very few people you can talk to about being LGBT
4. Watching what you say and do around heterosexual people
5. Hearing about LGBT people you know being treated unfairly
6. Hearing about LGBT people you don't know being treated unfairly
7. Hearing about hate crimes (e.g.,, vandalism, physical or sexual assault) that happened to LGBT people you don't know
8. Being called names such as "fag" or "dyke"
9. Hearing other people being called names such as "fag" or "dyke"
10. Hearing someone make jokes about LGBT people
11. Family members not accepting your partner as a part of the family
12. Your family avoiding talking about your LGBT identity
13. Your children being rejected by other children because you are LGBT
14. Your children being verbally harassed because you are LGBT
15. Feeling like you don't fit in with other LGBT people
16. Pretending that you have an opposite-sex partner
17. Pretending that you are heterosexual
18. Hiding your relationship from other people
19. People staring at you when you are out in public because you are LGBT
20. Worry about getting HIV/AIDS
21. Constantly having to think about "safe sex"
22. Feeling invisible in the LGBT community because of your gender expression
23. Being harassed in public because of your gender expression
24. Being harassed in bathrooms because of your gender expression
25. Being rejected by your mother for being LGBT
26. Being rejected by your father for being LGBT
27. Being rejected by a sibling or siblings because you are LGBT
28. Being rejected by other relatives because you are LGBT
29. Being verbally harassed by strangers because you are LGBT
30. Being verbally harassed by people you know because you are LGBT
31. Being treated unfairly in stores or restaurants because you are LGBT
32. People laughing at you or making jokes at your expense because you are LGBT 33. Hearing politicians say negative things about LGBT people

34. Avoiding talking about your current or past relationships when you are at work 35. Hiding part of your life from other people
36. Feeling like you don't fit into the LGBT community because of your gender expression
37. Difficulty finding clothes that you are comfortable wearing because of your gender expression
38. Being misunderstood by people because of your gender expression
39. Being treated unfairly by teachers or administrators at your children's school because you are LGBT
40. People assuming you are heterosexual because you have children
41. Being treated unfairly by parents of other children because you are LGBT
42. Difficulty finding other LGBT families for you and your children to socialize with 43. Being punched, hit, kicked, or beaten because you are LGBT
44. Being assaulted with a weapon because you are LGBT
45. Being raped or sexually assaulted because you are LGBT
46. Having objects thrown at you because you are LGBT
47. Worrying about infecting others with HIV
48. Other people assuming that you are HIV positive because you are LGBT
49. Discussing HIV status with potential partners
50. Worrying about your friends who have HIV

Scoring: The measure can be scored two ways:
1. Occurrence: Responses are recoded 0 = 0 (did not occur) and 1 through 5 = 1 (did occur). Items are then summed for a total score indicating how many of these experiences participants have had.
2. Distress: Responses are recoded so that 0 and 1 = 1 (did not bother) and the rest of the responses remain the same. A mean is then computed for responses to all items, indicating the mean level of distress participant feels related to these experiences.

9 Subscales:
Vigilance: Items 4, 16, 17, 18, 34, 35
Harassment and discrimination: Items 8, 19, 29, 30, 31, 32
Gender expression: Items 22, 23, 24, 36, 37, 38
Parenting: Items 13, 14, 39, 40, 41, 42
Victimization: Items 43, 44, 45, 46
Family of origin: Items 11, 12, 25, 26, 27, 28
Vicarious trauma: Items 5, 6, 7, 9, 10, 33
Isolation: 1, 2, 3, 15
HIV/AIDS: 20, 21, 47, 48, 49, 50

APPENDIX E

SF-36 (excerpt)

7. How much bodily pain have you had during the past 4 weeks?	
None	1
Very mild	2
Mild	3
Moderate	4
Severe	5
Very severe	6
8. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?	
Not at all	1
A little bit	2
Moderately	3
Quite a bit	4
Extremely	5

These questions are about how you feel and how things have been with you **during the past 4 weeks**. For each question, please give the one answer that comes closest to the way you have been feeling. **(Circle One Number on Each Line)**

9. How much of the time during the **past 4 weeks** . . .

	All of the Time	**Most of the Time**	**A Good Bit of the Time**	**Some of the Time**	**A Little of the Time**	**None of the Time**
a. Did you feel full of pep?	1	2	3	4	5	6
b. Have you been a very nervous person?	1	2	3	4	5	6
c. Have you felt so down in the dumps that nothing could cheer you up?	1	2	3	4	5	6
d. Have you felt calm and peaceful?	1	2	3	4	5	6
e. Did you have a lot of energy?	1	2	3	4	5	6

APPENDIX F

Perceived Stress Scale (PSS)

For each question choose from the following alternatives:
0 - never 1 - almost never 2 - sometimes 3 - fairly often 4 - very often

_____ l. In the last month, how often have you been upset because of something that happened unexpectedly?

_____ 2. In the last month, how often have you felt that you were unable to control the important things in your life?

_____ 3. In the last month, how often have you felt nervous and stressed?

_____ 4. In the last month, how often have you felt confident about your ability to handle your personal problems?

_____ 5. In the last month, how often have you felt that things were going your way?

_____ 6. In the last month, how often have you found that you could not cope with all the things that you had to do?

_____ 7. In the last month, how often have you been able to control irritations in your life?

_____ 8. In the last month, how often have you felt that you were on top of things?

_____ 9. In the last month, how often have you been angered because of things that happened that were outside of your control?

_____ 10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

PTSD CheckList – Civilian Version (PCL-C)

Client's Name: _____

Instruction to patient: Below is a list of problems and complaints that veterans sometimes have in response to stressful life experiences. Please read each one carefully, put an "X" in the box to indicate how much you have been bothered by that problem *in the last month*.

No.	Response	Not at all (1)	A little bit (2)	Moderately (3)	Quite a bit (4)	Extremely (5)
1.	Repeated, disturbing *memories, thoughts, or images* of a stressful experience from the past?					
2.	Repeated, disturbing *dreams* of a stressful experience from the past?					
3.	Suddenly *acting* or *feeling* as if a stressful experience *were happening* again (as if you were reliving it)?					
4.	Feeling *very upset* when *something reminded* you of a stressful experience from the past?					
5.	Having *physical reactions* (e.g., heart pounding, trouble breathing, or sweating) when *something reminded* you of a stressful experience from the past?					
6.	Avoid *thinking about* or *talking about* a stressful experience from the past or avoid *having feelings* related to it?					
7.	Avoid *activities* or *situations* because they *remind you* of a stressful experience from the past?					
8.	Trouble *remembering important parts* of a stressful experience from the past?					
9.	Loss of *interest in things that you used to enjoy?*					
10.	Feeling *distant* or *cut* off from other people?					
11.	Feeling *emotionally numb* or being unable to have loving feelings for those close to you?					
12.	Feeling as if your *future* will somehow be *cut short*?					
13.	Trouble *falling* or *staying asleep*?					
14.	Feeling *irritable* or having *angry outbursts*?					
15.	Having *difficulty concentrating*?					
16.	Being *"super alert"* or watchful on guard?					
17.	Feeling *jumpy* or easily startled?					

APPENDIX H

BRIEF RESILIENT COPING SCALE

BRCS Instructions: ***Consider how well the following statements describe your behavior and actions.***	(1) Does not describe me at all	(2) Does not describe me	(3) Neutral	(4) Describes me	(5) Describes me very well
I look for creative ways to alter difficult situations.					
Regardless of what happens to me, I believe I can control my reaction to it.					
I believe I can grow in positive ways by dealing with difficult situations.					
I actively look for ways to replace the losses I encounter in life.					

APPENDIX I

Demographic Information Questionnaire

Q52 What is your current age?

_____

Q53 What was your assigned sex at birth?

- Male (1)
- Female (2)
- Intersex (3)

Q54 Do you think of yourself as:

- Female (1)
- Male (2)
- Transgender Male/Transman/FTM (3)
- Transgender Female/Transwoman/MTF (4)
- Gender Queer (5)
- Non-Binary (6)
- Something else (please specify) (7)
- Don't know (8)

Q55 Do you think of yourself as

- ○ Lesbian, Gay, or homosexual (1)
- ○ Bisexual (2)
- ○ Straight or heterosexual (3)
- ○ Something else (please specify) (4)
- ○ Don't Know (5)

Q56 What is your marital status?

- ○ Single (1)
- ○ Married (2)
- ○ In a civil union (3)
- ○ In a domestic partnership, living together (4)
- ○ Partnered, not living together (5)
- ○ In a committed relationship (6)
- ○ Divorced (7)
- ○ Widowed (8)
- ○ Status not included (please specify) (9)

_____

Q57 What is your annual income (or combined annual household income if you have a spouse)?

- Less than $60,000 (1)
- $60,001 to $70,000 (2)
- $70,001 to $80,000 (3)
- $80,001 to $90,000 (4)
- $90,001 to $100,000 (5)
- Greater than $100,000 (6)

Q58 What is your highest level of education achieved?

- Some High School (1)
- High School/GED (2)
- Some Colege (3)
- Bachelor's Degree (4)
- Advanced Degree (5)
-

Q59 With which racial or ethnic category do you identify?

- African American (1)
- Asian/Pacific Islander (2)
- Caucasian (3)
- Latino/Latina/Latinx (4)
- American Indian or Alaska Native (5)
- More than one race/ethnicity (6)
- Identify not included (please specify) (7)

_____

Q60 What is your health insurance status?

- ○ Insured (1)
- ○ Uninsured (2)

Q61 If insured, what is your current healthcare insurance?

- ○ Medicare (1)
- ○ Medicaid (2)
- ○ Private insurance (3)
- ○ Other (please specify (4) _____

Q62 What kind of healthcare did you receive in the past year? (please check all that apply)

- ☐ Primary Care (1)
- ☐ Specialist (e.g. endocrinologist) (2)
- ☐ Emergency Room/Urgent Care (3)
- ☐ Other (please specify) (4)

_____

Q63 What kind of mental healthcare did you receive in the past year? (please check all that apply)

- ☐ Psychiatrist (1)
- ☐ Therapist (e.g. MFT, psychologist) (2)
- ☐ Other (please specify) (3) _____

Q64 Which of the following common mental health complaints have you experienced in the past year? (please choose all that apply)

- ☐ Depression (1)
- ☐ Anxiety (2)
- ☐ PTSD (3)
- ☐ Problematic Substance Use (4)
- ☐ Eating disorder (5)
- ☐ Gender-related concerns (6)
- ☐ Mania/Hypomania (7)
- ☐ Hallucinations (auditory or visual) (8)
- ☐ Panic attacks (9)
- ☐ Bipolar disorder (10)
- ☐ Schizophrenia (11)

- [ ] Suicidal Thoughts (12)
- [ ] Suicide Attempt (13)
- [ ] Homicidal Thoughts/Attempt (14)
- [ ] Other (please specify) (15)

Q65 Which of the following common mental health complaints have you experienced in the past year? (please choose all that apply)

- [ ] Heart disease (1)
- [ ] Lung Disease (2)
- [ ] Liver disease (3)
- [ ] Cancer (4)
- [ ] Diabetes (5)
- [ ] Kidney Disease (6)
- [ ] Obesity (7)
- [ ] HIV/AIDS (8)
- [ ] Other STI (not HIV/AIDS (9)
- [ ] Dementia/Alzheimer's Disease (10)
- [ ] Arthritis (11)

Other (please specify) (12)

APPENDIX J

Online Recruitment Flyer

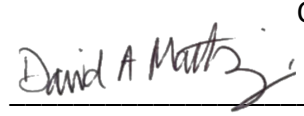
PsyD Clinical Dissertation Signature Page

This Clinical Dissertation, written under the direction of the student's Clinical Dissertation Chair and Committee and approved by Members of the Committee, has been presented to and accepted by the faculty of the Clinical Psychology PsyD Program in partial fulfillment of the requirements for the degree of Doctor of Psychology. The content and research methodologies presented in this work represent the work of the student alone.

Student Signature

	6/17/21
Student	Date

Clinical Dissertation Committee Member Signatures



	6/24/21
Committee Chair	Date
William Hua	6/17/21
Committee Member	Date
Erin Grinshteyn	06/21/2021
Committee Member	Date
Committee Member (if applicable)	Date

Administrator Signatures

	6/29/2021
Program Director, Clinical Psychology PsyD Program	Date
Margaret Baker	6/30/2021
Dean, School of Nursing and Health Professions	Date